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MARYLAND STATE DEPARTMENT OF HEALTH

R. H. Riley, M.D.  
Director

Data On

BUREAU OF COMMUNICABLE DISEASES

Presented To

MARYLAND LEGISLATIVE COUNCIL

For Hearing

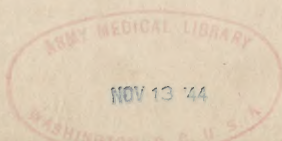
September 18, 1942  
At Baltimore, Maryland

1300

C. H. Halliday, M.D.  
Chief and Epidemiologist

Maryland. BUREAU OF COMMUNICABLE DISEASES  
MARYLAND STATE DEPARTMENT OF HEALTH

2411 North Charles Street  
Baltimore, Maryland



MARYLAND STATE DEPARTMENT OF HEALTH

E. H. WILSON, M.D.

Director

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For Reading

September 12, 1942

at Baltimore, Maryland

1200

E. H. WILSON, M.D.

Chief and Epidemiologist

BUREAU OF COMMUNICABLE DISEASES  
MARYLAND STATE DEPARTMENT OF HEALTH

2411 North Charles Street

Baltimore, Maryland

*Specimens  
Submitted*



## C O N T E N T S

### Pages

I. Summary	
II. Bureau of Communicable Diseases	
Policies and Service	1 - 3
Tuberculosis	3 - 6
Typhoid Fever	6 - 8
Diphtheria	8 - 9
Smallpox	9 - 10
Rabies	10
✓ Pneumonia Control Program	10 - 11
Rare Communicable Diseases	11
Poliomyelitis	11 - 12
Venereal Diseases	12 - 13
III. Services for Crippled Children	13 - 17
IV. Rheumatic Fever and Heart Disease Program	17 - 19
V. Tables, Morbidity and Mortality	
VI. Maps Showing Military Reservations and Defense Activities	



## SUMMARY

The Bureau of Communicable Diseases covers a broad field of work in which there are several activities, varying widely in character one from the other.

A summary of the morbidity and mortality of a few of the communicable diseases shows that there has been a decided decline in these diseases.

Tuberculosis: Reporting of tuberculosis has been generally considered good. During 1936, the ratio of reported cases to deaths for the counties was 2.1. In 1922, the morbidity rate per 100,000 population for the State as a whole was, for the white race 151.2, and for the colored race 312.2; in 1941 the rate for the whites decreased to 106.9, but for the colored increased to 449.1.

Tuberculosis, which until 1917, stood first on the list as a cause of deaths, has dropped to seventh place. The death rate per 100,000 population in 1906 for the whites was 167.1 and for the colored 387.0, and in 1940 the rate for the whites had decreased to 71.3 and for the colored to 204.0.

The per cent decrease for the period 1906-1940 was 65.7 for the total population; 75.1 for the whites, and 47.3 for the colored race.

Typhoid Fever: Morbidity data is considered complete for the period 1916-1940. In the first mentioned year there were 2,668 cases reported, and in 1940 only 127 cases were reported.

The death rate per 100,000 population for the period 1916-1940 shows a decided decline. There were 265 deaths in 1916 and 11 deaths in 1940, giving a mortality rate of 19.0 in 1916 and in 1940 a rate of 0.6. Stated in another way, there were fewer cases in 1940 than there were deaths in 1916.

Diphtheria: A marked decrease in the number of cases of diphtheria has occurred in the period 1916-1940; in the former year there were 1,885 cases reported and in 1916 only 158 cases, a morbidity rate in 1916 of 135.2 and in 1940 a rate of 8.6.

The deaths from this disease have decreased from 170 in 1916 to seven in 1940. The per cent decrease in the number of deaths for the period was 97.9. The death rate per 100,000 population has decreased from 12.2 in 1916 to 0.4 in 1940.

There are three programs which are worthy of special mention:

### I. The Pneumonia Control Program.

In 1939, there was appropriated \$10,000 for the control of pneumonia and a program was formulated for the free distribution of sulfapyridine and sulfathiazole to practicing physicians applying to County Health Officers, for the treatment of patients unable to purchase the same. The program also provides systematic laboratory tests as a means of checking any untoward effects of the drug, and for nursing services by the County Public Health Nurses.

Before this program was put in operation, the State Board of Health appointed



a Committee on Pneumonia to determine the method of distribution of the drugs. As a result of the recommendation of the Committee, the program was laid before the Council of the Medical and Chirurgical Faculty and was approved by them.

The program met with general approval and certain States and Canada requested authority to use the program.

A check of the results of control measures for one year, showed a significant drop, not only in the death rate, but also in the fatality rate. The death rate per 100,000 population dropped from a five year average of 108.5 per cent to 80.7; the case fatality rate fell from a five year average of 30.7 to 17.9.

## II. Special Poliomyelitis Program.

Early in June, 1941, when it was apparent that the incidence of this disease was increasing, a Special Project was presented to the U. S. Children's Bureau for approval. The plan had three major objectives: (1) Locating all cases of infantile paralysis, consultation service and instruction to members of the household in preventive measures; (2) hospitalization of cases; (3) adequate medical care and after treatment of those patients who could not be hospitalized.

This plan received the approval of the U. S. Children's Bureau and the State received a special grant in aid of about \$16,000. The sum did not require matching by State funds.

Of the total number of cases showing definite paralysis, 63 were hospitalized and 67 received medical attention and after care in their homes. Of 130 patients on which complete data is available, 72 made a complete recovery; 55 had only slight or moderate residual paralysis remaining; and three remained with complete paralysis of the part which was involved at the onset of the disease. Seven deaths occurred in the group. Respiratory treatment was provided for eight of the cases; this type of the disease usually proving fatal, only one died in this group of seriously ill patients.

In the general program, Services for Crippled Children, there were 89 clinics held, 462 patients hospitalized providing 33,274 hospital days at a hospital cost of 73,559.27; and \$5,733.22 was expended for shoes, braces and appliances.

## III. The Rheumatic Fever and Cardiac Program.

This program was made possible by a special grant in aid of about \$30,000 from the U. S. Children's Bureau, without requiring State funds. While the plan provided that the program in the beginning be limited to Anne Arundel County, other children suffering from rheumatic fever and heart disease have been hospitalized and received medical care on the same basis as those children from Anne Arundel County; the number of children from the counties has equaled the number from Anne Arundel County. This service was extended to the counties on the premises that a child in one county was equally entitled to the same care as a child in any other county.

Preventive Medicine: Today health departments are thinking more and more in terms of preventive medicine. Preventive medicine is the application of the principles we have derived from scientists. The work of the immunologist has



provided the means for our present day programs of immunization which have resulted in a marked reduction in the morbidity and mortality of smallpox, diphtheria and typhoid fever. However, we can not rely on immunization alone, but must remember that in preventive medicine the elementary and basic principles must include sanitation, safe water supplies, proper waste disposal, pasteurized milk, protected food supplies, and campaigns against insect vectors, proper food supply and adequate housing facilities.

Laws: Some of our health laws should be revised to meet present day public health administration. Health and preventive medicine are the major consideration. Any health officer who knows the principles of preventive medicine so well that he can explain the steps necessary to maintain health to the general public in simple every-day language entirely free from technical terminology, will seldom have difficulty in securing the adoption of any reasonable measure to conserve the health of the people.

### The Present Emergency

"An emergency is a reality appearing suddenly and calling for immediate action."

The emergencies with which the health departments are faced today are both military and civil; the latter being especially those activities associated with the war production effort.

The first emergency created was the assembling within the health jurisdiction area a large number of men for the army and civilian workers from a wide variety of homes and communities. With excessive population growth, such as has occurred in several sections of the State, some hazards are bound to occur, which include unusual opportunities for exposure to bacterial and virus diseases of the upper respiratory tract, and likely to be accompanied by an increased occasion for venereal infection.

These increases in communicable diseases may express themselves as sudden increases in cases of mumps, measles, whooping cough, meningitis, the common cold, influenza and bacillary dysentery, first among the new arrivals and then in the contiguous normal population.

Tuberculosis cases among defense workers have already occurred. These individuals may have had an inactive tubercular lesion, which under normal conditions of life may have never progressed, but the added physical strain and a changed environment were the necessary elements to push them across the state of well being to a state of ill health. Owing to limitation of bed space and their non-resident status, they are not eligible for admission to the State Tuberculosis Sanatoria. Tuberculosis in this connection may require some federal government assistance, either in providing transportation of this type of patient to his legal residence or hospitalization in a Federal Hospital.

A second emergency, which has already occurred, is the insidious or obvious infiltration of prostitutes who will, or have, created a sanitary nuisance in zones surrounding military areas readily accessible to officers and men off duty as well as the defense workers.

A third which occurred was the sudden establishment of a multitude of



eating, drinking and amusement places accessible to troops, their visiting friends and the civilian population. These places have already been brought under control by the health officer, assisted in some instances by the military authorities.

During the present military mobilization and industrial expansion, no serious hazard to health has occurred in any of the areas. This has depended upon the competence of the State and local health departments in two respects: first, the accurate, complete and up-to-date record of all potable and non-potable and potentially usable safe water sources in the areas, a record of all premises and persons permitted a license to produce or sell milk, and of all public eating places, and the method and place of disposal of household, industrial and community waste. The second has been the knowledge of the incidence of notifiable diseases in the area and of insect and other vermin nuisances, and of the housing and industrial conditions which may become foci for the spread of disease.

We must now make sure that there are available at all times complete records of all facts of sanitary importance in these areas, and keep these records up to date at all times. The civilian population must be kept informed of all clinics available to them, and from the military authorities we have the right to expect equally complete information as to the sanitary status and communicable diseases among the troops.

With the demobilization of thousands of soldiers and defense workers, health departments will be faced with problems of great magnitude.

There will be thousands of individuals returning to civil life; many of whom will be suffering from disabilities of body and mind as a result of war service. These will rightfully be cared for by the Federal Government.

Men and women will be returning from foreign lands where there exist diseases unknown to the general physicians and health officers; these will create medical and public health problems which we must prepare to care for. Malaria fever which may have been held in abeyance by prophylactic treatment while in the service may become potential foci for the spread of the disease. Many other infections existing largely in tropical and sub-tropical countries may be brought into this country.

State, City and County Health Departments during phase of war and in the post-war period will be with problems of greater magnitude than before, and their activities will be greatly expanded.



## BUREAU OF COMMUNICABLE DISEASES

C. H. Halliday, M.D.

The Bureau of Communicable Diseases was established by Acts of Legislature of 1890, 1896, 1904 and 1910, and authorized by law in the latter year.

### Policies and Service

The Bureau covers a broad field of work in which there are several activities varying widely in character one from the other. The State Board of Health has kept work and activities in the Bureau of Communicable Diseases which are commonly conducted under separate divisions in other states. These are epidemiology, tuberculosis and venereal diseases for which separate divisions have not been created.

The Bureau's responsibilities are:

1. To record, tabulate and study official reports of communicable diseases within the State; to check the completeness of official reports and to investigate unofficial and all other reports reaching the Bureau; and to make analysis of morbidity statistics, whether these be collected directly or through some other division.
2. To check the mortality statistics obtained through the division of vital statistics with the morbidity data.
3. To secure immediate information from the division of sanitary engineering or other divisions as to the prevalence of diseases.
4. To use laboratory data as a source of primary information as to the existence of communicable diseases.
5. To make investigations of the existence, prevalence, sources and modes of spread of communicable diseases within the State.
6. To supervise the adequacy of local administrative measures in dealing with the control of communicable diseases.
7. To make special investigations of problems, the solution of which may prove of value in conserving public health or in the advancement of knowledge on these subjects.



8. To classify, analyze and interpret all available information with reference to disease for administrative guidance in formulating sound plans of procedure and acquainting health agencies, the medical profession and the public with facts.
9. To assist local authorities in epidemiological activities, assist in the immunization programs and to render special service upon request.

#### Records and Reports:

1. Receive from the county health officers, private physicians and hospitals, reports of communicable diseases. Record, tabulate and study these reports and make available the data obtained.
2. Report figures in weekly reports to health officers of contiguous states, Federal Officers at ports, certain Federal Hospitals and the Chief Surgeon, U.S. Army, relative to the prevalence of communicable diseases in the vicinity of military reservations and National Defense Projects. Special daily reports submitted to Baltimore City Health Department, District of Columbia Health Department and Washington Suburban Sanitary District. Special reports and tabulations of communicable diseases are sent weekly, monthly, quarterly, semi-annually and annually to the U.S. Public Health Service. In the event of an unusual outbreak of disease, a daily report is sent to the U.S. Public Health Service.
3. Report migration of persons in an infectious condition and persons exposed to infection to the proper health officials within the State and state health officials of other states.
4. Follow up official and unofficial reports of communicable diseases to complete records and to find unreported cases.
5. Check death certificates of communicable diseases with communicable disease cases reported to ascertain whether the death had been reported as a communicable disease and, if not, to have it reported as such. Check laboratory reports against clinical diagnosis and physicians' reports.
6. Investigate in the field and assist health officers and physicians in the prevention and control of communicable diseases by (a) tracing sources of infection and modes of spread (b) establishing diagnosis when requested in cases of doubt (c) giving detailed advice for the management of special situations and (d) enforcing the health laws and regulations. Field investigations are made upon request of health officers, physicians, school and other local officials and upon request



or complaint of citizens and also when reports of cases indicate that an investigation should be made. In such investigations a search is made for mild unrecognized and concealed cases of communicable diseases and well carriers.

## Tuberculosis

Chapter 412, Acts of 1904, enacted by the General Assembly of Maryland and approved April 8, 1904, designated the State Board of Health to keep a register of all persons known to be affected with tuberculosis.

The Act provided for the reporting of pulmonary and laryngeal tuberculosis by name, age, sex, color, occupation, social condition and residence by superintendents of all State institutions and physicians.

### 1. Statistics.

- (a) Receive case reports directly from physicians, county health officers, hospitals, institutions and clinics, except for Baltimore City from which reports are received from the Commissioner of Health. Record, tabulate, study and make available this accumulated data to county health officers and to other official and semi-official organizations.
- (b) Report data to the U.S. Public Health Service by regular and special reports.
- (c) Follow up official and unofficial reports to complete records and keep a complete file and a cross index file of all cases reported.

### 2. Clinics: Regular clinics are held in each county health department. The clinic is the headquarters for field tuberculosis work and affords consultation service to the general practitioner for his private patients, serves as a distributing station for containers for specimens of sputum, acts in a supervisory capacity to industrial organizations, maintains close association with welfare agencies, assists physicians in the hospitalization of patients and provides facilities for X-ray, fluoroscopic examinations and tuberculin testing.

### 3. Case Finding.

Reports of cases by physicians from records of laboratory reports, tuberculin testing of all contacts and school groups, X-ray and physical examinations of contacts.

### 4. Epidemiology.

Investigation of every reported case of tuberculosis; check positive sputum laboratory reports; check death certificates against morbidity reports. Epidemiology



includes a study of patients discharged from sanatoria with the purpose to learn what has happened to the patients after they are discharged from the institution.

#### 5. Control.

Early diagnosis, prompt hospitalization, sputum disposal, registration, tuberculin testing of children, epidemiological investigations, operation of clinics, examination of contacts, special efforts to prevent infection in young children and the removal of the susceptible from contact with active cases.

The real problem in control is to find the case, to trace it to its source, to maintain sanitary surveillance of the source, to remove susceptibility from contact with this source, and to raise the resistance of those who have already been exposed.

#### 6. Morbidity.

Reporting of tuberculosis has been generally considered very good and with the development of county health departments and state-wide clinics, reporting has steadily improved. During 1936, the ratio of reported cases to deaths, corrected for residence, for the twenty-three counties was 2.1, and for Baltimore City 1.9, giving the State a ratio of 1.9. For 1940, the ratio of reported cases to deaths for the State was 2.3. The morbidity rate per 100,000 population for the State as a whole for the white race in 1922 was 151.2 and for the colored, 312.2. In 1941, the morbidity rate for the white was 106.9 and for the colored, 449.1, a marked decrease for the white and a decided increase for the negro. For the same year in Baltimore City the rate for the whites declined to 166.6 but for the colored increased from 332.4 to 589.3.

#### 7. Mortality.

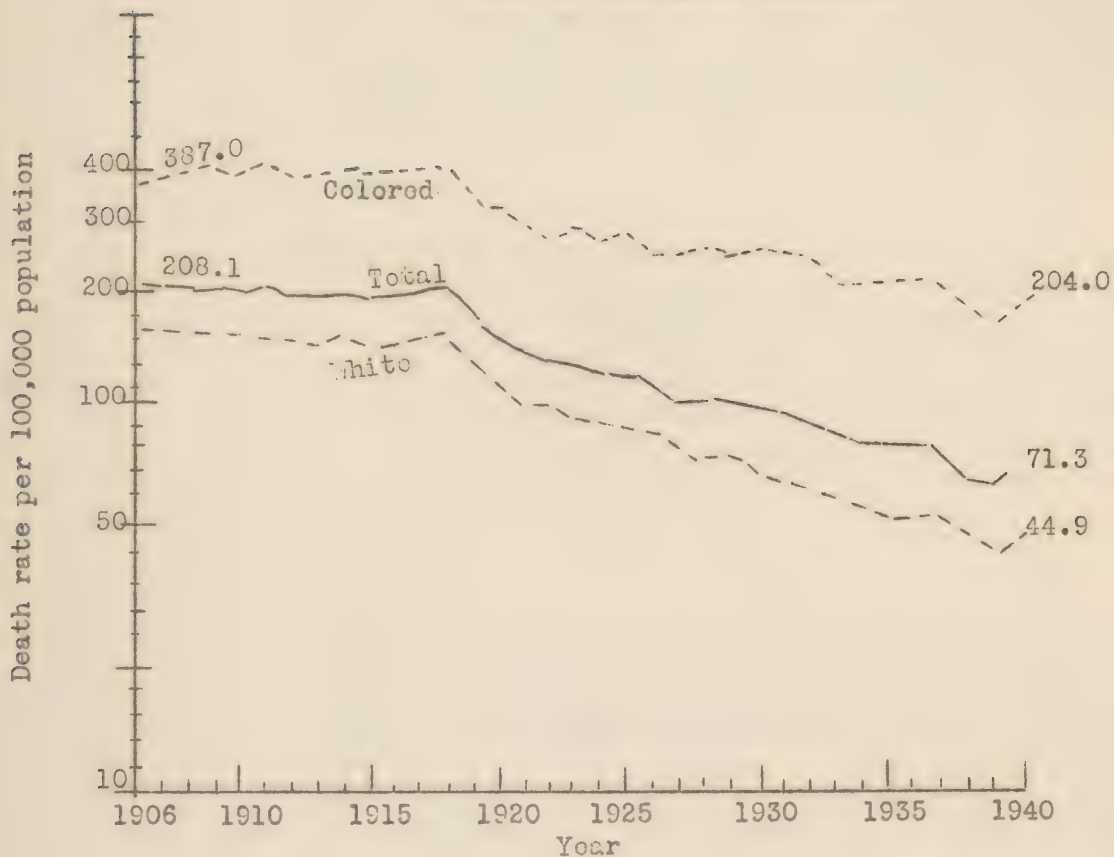
Tuberculosis, which until 1917 stood first on the list of the principal causes of death in Maryland, has dropped to seventh place. This decrease is gratifying and testifies to the enormous amount of concentrated energy in the past of those working in the field. It does not, however, minimize the importance of the disease as a cause of sickness and death. For the period 1906-1940 the rate of cases for the total population was 50.1; for the whites 59.9 and for the colored 31.6. The rate per 100,000 population decrease was 65.7 for the total population; 73.1 for the whites and 47.3 for the colored. The white decrease was approximately 68 per cent, while the rate for the colored showed only a 46 per cent decrease.



There are several possible reasons for this. It is usually argued that negro susceptibility to the disease is hereditary. This may be true, but it must also be recognized that the conditions under which these people live probably tend to lower their resistance to infection. Poor or inadequate diet, occupational hazards, and unsanitary and crowded living quarters, do not discourage the spread of any disease, especially tuberculosis, and these conditions cannot easily be improved because of the insecurity of the colored race.

DEATH RATES PER 100,000 POPULATION FOR TUBERCULOSIS (ALL FORMS)

STATE OF MARYLAND, 1906-1940



One of the major problems of the program at the present time is the epidemiological study of tuberculosis carried on by the health officers. This has already led to notable advances in our knowledge of the disease. This has been made possible by an intensive study of tuberculous families and the study of the childhood type of tuberculosis. In carrying out these studies the x-ray has been an essential feature.



Every case of known tuberculosis forms a starting point for field investigation directed to discovering the source of infection. These investigations frequently lead to the discovery of other cases of which the new case has itself been the source. By this procedure the chain of infection is traced exactly as in the epidemiological investigation of any other communicable disease.

## 8. Sanatoria.

The State and Baltimore City combine their problems in this field of the program, hence hospitalization must be considered on that basis. The combined bed capacity for 1940 was 2,041; for the whites 1,399 beds and for the colored, 642 beds. (There are 66 additional beds for the colored race to be opened at Henryton). The ratio of beds per deaths was one for the colored and two beds for the white; for both races the ratio was 1.7, which brings the ratio of beds per death above the minimal requirements set by the National Tuberculosis Association.

## Typhoid Fever

### 1. Statistics.

- (a) Receive case reports directly from physicians, county health officers, hospitals and institutions except from Baltimore City, from which reports are received through the Commissioner of Health, Baltimore City. Record, tabulate and study and make available the accumulated data. Daily reports of cases to Baltimore City and District of Columbia Health Departments and Washington Suburban Sanitary District, cases and carriers living on water or milk sheds.

### 2. Morbidity.

The reporting of typhoid fever is considered to approach nearly 100 per cent. The morbidity data is considered complete for the period 1916-1940. In the first year mentioned there were 2,668 cases reported, and since that year there has been a gradual decline in the number of cases; and for the year 1940 there were 127 cases reported. The morbidity rate per 100,000 population in 1916 was 191.3 and in 1940, 7.0.

### 3. Mortality.

The death rate per 100,000 population for the State of Maryland for the period 1916-1940 has shown a most remarkable decline. There were 265 deaths from this disease in 1916 and eleven deaths in 1940, giving a mortality rate per 100,000 population in 1916 of 19.0 and in 1940 a mortality rate of 0.6. In considering the decline of typhoid fever in the State of Maryland it is gratifying to note that in 1940



there occurred fewer cases of typhoid fever than there were deaths in 1916.

4. Epidemiological Service.

- (a) Investigation of every reported case of typhoid fever; fix date of onset; inquire as to source, covering a period of at least one month prior to onset. Define a contact base from which laboratory specimens are to be submitted; history of previous typhoid in contacts or presence of typhoid agglutinins (not due to typhoid vaccine) in blood from contacts; include in investigation food and milk handlers, water supply and sewage disposal. Any contacts with patients with whom he had rarely or never before had association and all elderly persons including visitors and visited persons who may have had some chance of handling food consumed by the patient; all persons in the home or in visited home, regardless of age, who give a history of any recent or remote illness.

5. Typhoid Carriers.

- (a) The term typhoid carrier is used to mean a chronic typhoid carrier, defined as a person with or without a partial, present or atypical Widal reaction (also a VI antigen reactor) in whose stool, urine or bile typhoid bacilli are found, provided that in persons who have had typhoid fever the infection is proved at the end of 12 months, or later, following onset.
- (b) Administrative effort is concentrated on carriers whose occupations bring them in contact with milk or other ready-to-eat food, sold or served to the public. Under this may be included private nurses and domestic servants.

Typhoid Carriers  
In the Counties of Maryland

Eighteen typhoid carriers, who accounted for 13 cases of typhoid fever, were added in 1941 to the active list in the Counties of Maryland. There are now 235 on the active typhoid carrier list in the counties who have been responsible, over a period of years, for 590 cases of the disease. Carriers in Baltimore City are not included in this total.

A register of typhoid fever carriers in Maryland was started in 1929 and is kept up-to-date as new carriers are discovered. The management of typhoid fever carriers has always presented a most difficult problem to health agencies. The regulations of the Maryland

State Department of Health for the supervision of typhoid carriers forbid them to handle food or drink intended for the use of others. The movements of carriers are reported to the Department and rules are enforced regarding the personal hygiene and disposal of excreta from carriers. Known typhoid carriers are forbidden to engage in occupations such as food handling and dairy work.

6. General Control.

Improvement of public and private water supplies, rural sanitation, pasteurization of milk supplies; immunization among all intimate contacts with acute cases; immunization as a general program only in the presence of an epidemic; discovery and control of typhoid carriers. Patients are discharged on clinical recovery and negative stool and urine specimens. Feces and urine specimens should be submitted at stated intervals. At the end of one year if typhoid bacilli is found in urine or feces, intermittently or continuously, such a person is added to the chronic carrier list. The number of carriers found by routine examination of specimens from large groups of persons, such as food handlers, is too small to warrant the expense.

Diphtheria

1. Statistics.

Receive case reports directly from physicians, county health officers, hospitals and institutions. Record, tabulate and study and make available accumulated data to county health officer.

2. Epidemiology.

Investigation of all reported cases and suspected cases; check laboratory reports and death certificates with morbidity reports; culture of contacts with cases; investigate all possible sources of infection, including milk supplies; check cases with immunization records; tabulate statistical data for study and information of local health departments.

3. Preventive Measures.

Active immunization of all children without previous Schick testing at the age of six months with diphtheria toxoid. Same procedure applies to all children at or below six years of age if immunization has been neglected in infancy. Older children, adults, especially exposed, including teachers, nurses and physicians, found to be Schick-positive, should be actively immunized. Pasteurization of milk supplies.



#### 4. Morbidity.

For the period 1916-1940, the number of cases of diphtheria reported to the Bureau of Communicable Diseases shows a decrease of 1,885 cases in 1916 to 158 cases in 1940. The morbidity rate per 100,000 population in 1916 was 135.2 and in 1940, 8.6.

#### 5. Mortality.

The deaths from diphtheria have decreased from 170 in 1916 to 7 in 1940. The death rate per 100,000 population has decreased from 12.2 in 1916 to 0.4 in 1940. The per cent decrease in the number of deaths for the period 1906-1940 was 97.9 for the total population; 97.8 for the white and 98.1 for the colored. The per cent of decrease in the mortality rate per 100,000 population for 1906-1940 was 98.5 for the total population, and approximately the same rate exists for the white and the colored.

#### 6. Control Measures.

Recognition of cases; isolation until two negative cultures are taken from nose and throat, not less than 24 hours apart, fail to show the presence of diphtheria bacilli. When culture is impracticable, case may be released 16 days after clinical recovery. Where cultures are positive, virulency test is made three weeks after recovery. Patient may be released if cultures are positive, if case is kept under observation of health department.

Concurrent disinfection of all articles which have been in contact with the patient and all articles soiled by discharges of the patient. Terminal disinfection at end of illness; isolation or control over all intimate contacts found to be carriers; carriers of virulent bacilli not to handle milk or food supplies for public.

#### Smallpox

No case of smallpox has developed within the State in the past thirteen years.

Provision for the distribution of vaccine virus by the State Board of Health was made effective by Acts of Legislature 1864, 1872, 1888, 1904 and 1916, as follows:

"The State Board of Health shall keep on hand, and procure as often as may be necessary, pure vaccine virus, and furnish such virus to the physicians of the State, gratuitously, when called for; ...."

The law also states that it shall be the duty of every practicing physician to vaccinate all children in the circle of his practice which may be presented to him one year after birth. The law imposes a duty on the parent or guardian for the vaccination of the child and failure to comply imposes a fine of not less than five

and no more than ten dollars for each offense. It is the duty of the teacher in the public school within ten days of the beginning of all terms to determine the number of children who have not been vaccinated and if the parents are not able to pay for vaccination refer them to the vaccine physician appointed by the county or to the county health officer for vaccination.

#### Rabies.

Antirabic treatment was first started in Maryland at the Pasteur Institute of Baltimore, February 21, 1897, and was under the direction of the late Dr. Nathaniel G. Keirle. This institute was discontinued November 1, 1915, and control of rabies became a part of the Maryland State Department of Health, Bureau of Communicable Diseases.

The following is an Act of the General Assembly, Section 248, Chapter 204, 1912, on rabies:

"The State Board of Health is hereby authorized, empowered and directed to provide for the treatment of persons exposed to the contagion of hydrophobia who are unable to pay the usual charges for the treatment known as Pasteur treatment."

During 1940 1,077 persons reported to the Department on account of dog bites. Of this number 127 received the Pasteur treatment; 950 were found not to require treatment by reason of the animal being detained and determined not to have suffered from rabies. The majority of the 127 persons who did receive the Pasteur treatment were treated because they were bitten by stray dogs. There was only one positive animal brain for rabies in the bacteriological laboratory during the year. At the College Park laboratory two positive brains were discovered. Dr. Mark Welsh, State Veterinarian, has stated that the number of stray dogs in Maryland has materially increased owing to animals being brought into the State by the influx of the population engaged in defense activities. There is undoubtedly a problem in the dog population for the State Veterinarian, and he has met this situation as cases have developed.

#### Pneumonia

##### Control Program.

In October, 1939, the State Board of Health appointed a Committee on Pneumonia to determine the method of distribution, by the State Department of Health, of sulfapyridine or other approved drugs and serums. The program as recommended by the Committee was approved by the Council of the Medical and Chirurgical Faculty of Maryland.

The program included:

- (a) An adequate amount of the drug for the treatment of a patient, furnished to any physician who reports to the health officer a patient with pneumonia in his practice who cannot find funds to purchase the drug.



- (b) Through the central and regional laboratories and special trained public health nurses, systematic laboratory tests are provided at two day intervals during the patient's illness as a check on toxic changes which may develop during the course of treatment.

Other  
Communicable  
Diseases

Measles, German measles, Mumps, Chickenpox and Whooping Cough.

Regular communicable disease reports are received on these diseases.

Rare  
Communicable  
Diseases

Rare communicable diseases, such as leprosy, amoebic dysentery, encephalitis, malaria, septic sore throat, trichinosis, undulant fever, Rocky Mountain spotted fever, typhus, psittacosis, are investigated and controlled in conformity with the control of these diseases as recommended by the Committee of the American Public Health Association.

Poliomyelitis

1. Statistics.

Receive case reports directly from physicians, county health officers, hospitals, institutions and clinics, except for Baltimore City from which reports are received through the Commissioner of Health. Record tabulate, study and make available this accumulated data to the county health officers and to other official and semi-official organizations.

2. Case Finding.

Report of cases by physicians and institutions and by investigation of cases or suspected cases reported from any source.

3. Epidemiology.

Investigation of all cases and suspected cases; diagnosis service to physicians on request to assist at the diagnosis of mild or cases of undetermined illness. Locate unrecognized and unreported cases of the disease; determine the extent of unrecognized illnesses, especially among children in community where the disease occurs. Make special tabulations of the accumulated data for distribution to local health departments.

4. Control.

Isolation of patient for two weeks from date of onset; concurrent disinfection of nose and throat discharges from the patient. Exposed children of the household of school age to be kept from school, and adults in household whose vocation brings them into contact with children or with food to be eaten uncooked to be kept from vocation for 14 days from last exposure to recognized case.

During epidemics or unusual outbreaks, physicians and laity kept informed as to prevalence or increase of incidence of the disease. All children with fever isolated pending diagnosis.

There have been several outbreaks of poliomyelitis in the State. The first to occur was in 1916 when there were 147 cases reported from the counties; one in 1921 with 73 cases; in 1928 with 162 cases and the one of 1941 with 136 cases. Of the 1941 cases, seven patients died.

In May, 1941, when it was apparent that we would have an increase in poliomyelitis, a plan was formulated for the intensive care of these cases. This program was made possible by a special grant from the United States Children's Bureau. This is more fully discussed in the section on Services for Crippled Children.

Venereal Diseases 1. Statistics.

Receive case reports directly from physicians, county health officers, hospitals and institution, except for Baltimore City from which reports are received through the Commissioner of Health; record, tabulate, study and make available the accumulated data.

2. Distribution of drugs for the treatment of syphilis and gonorrhea.
3. Consultation service in the diagnosis and treatment of syphilis (including central nervous syphilis) and gonorrhea.
4. Venereal Disease Epidemiological Service.

- (a) Follow up persons reported by patients as source or probable sources of their infection; also infected persons reported by physicians as delinquent in taking treatment and arrange for necessary examination and treatment.
- (b) Arrange for examination of children of syphilitics and parents of syphilitics, and when necessary arrange for their treatment.
- (c) Through the Bureau of Child Hygiene Prenatal Clinics secure seriological examinations of all women attending clinics.
- (d) Through the local county health officers check all draftees reported as having positive Wassermann tests as to whether they have been investigated by case workers and placed under treatment as a result of an epidemiological investigation and whether those found were already under treatment.
- (e) Advise and assist or personally initiate legal steps in dealing with irresponsible venereal disease patients.
- (f) Advise and assist official and unofficial agencies in solving venereal disease problems in relation to welfare work.



There are clinics for syphilis and gonorrhea held in all of the counties of the state. Approximately 3,300 clinic sessions were held during the year. For the counties of Maryland during 1940 there were 3,456 cases of syphilis reported and in 1941, 3,365. There were 1,193 cases of gonorrhea reported in 1940 and 2,253 in 1941.

The U. S. Public Health Service has published "Results of Serological Blood Tests for Syphilis in Selective Service Registrants", based on the first million reports received. For the State of Maryland there were 13,461 tests made and 1,356 syphilis cases detected.

### SERVICES FOR CRIPPLED CHILDREN

Services for Crippled Children had their beginning in Maryland, about 1900, under the Baltimore Council of Jewish Women. That organization found a lack of educational facilities, both academic and vocational, inadequate medical care and lack of public support. Their work was continued until April, 1927, when they proposed their own withdrawal to give way to the new State-wide organization, the Maryland League for Crippled Children.

When additional funds were offered by the Federal Government under the Social Security Act, the Board of State Aid and Charities was first designated as the official State agency in charge of the Services. The staff was enlarged to include seven physiotherapists located at strategic points through the State, and three orthopedic nurses. In 1937, by an Act of Legislature, the Services for Crippled Children were transferred to the Maryland State Department of Health.

**Definition** For purposes of administration, a crippled child will be considered as "A person under twenty-one years of age who by reason of a physical defect or infirmity, whether congenital or acquired by accident, injury, or disease, is or may be expected to be totally or partially incapacitated for education or for remunerative occupation, but shall not include the deaf and the blind."

All children under the age of twenty-one years will be admitted to the services for examination, hospitalization and follow up care. Actual need for free consultations in the clinic and hospitalization will be determined by information secured by the executive secretary of the county welfare board, but those who are able to pay for part of the service will also be admitted.

**Methods of Administration** The administration of the plan is under the Director, Services for Crippled Children, who is responsible for all administrative details and cooperates with the orthopedic surgeons conducting the clinics and the full time county health officers and their staff in providing clinic service, nursing and physiotherapy care for all those admitted to the register. Activities carried out

consist of the following:

- a. State-wide planning and coordination.
- b. Locating, having examined, hospitalizing and follow-up services for crippled children.
- c. Preparing and submitting to the Children's Bureau such reports as are required.
- d. Auditing bills for transportation; care of braces, appliances and shoes; expense accounts of personnel; hospitalization and surgeons' fees.
- e. Preparation of rules and regulations, information and bulletins necessary for the effective operation of the program.

Activities      (A) Locating crippled children (other than through diagnostic clinics).

The law requires that the Board of Education make a biennial school census which includes a record of physically handicapped children, and it is through the biennial school census that the majority of crippled children are located. The clinics for crippled children also afford a means of locating crippled children not previously on the State register. This class of patients come largely through private physicians referring known cases to the clinics.

The county public health nurses on their visits to postnatal cases ascertain the physical condition of the baby, and any congenital defects, malformations, or crippling accidents at birth are added to the list. Private physicians refer or report the names of crippled children to the county health department; local social agencies and clubs assist in bringing to the attention of the local health departments all children suffering from crippling conditions with whom they come in contact and who need care or have lapsed in their treatment. Epidemiological reports are utilized, especially those of poliomyelitis, meningitis, undulant fever, encephalitis, bone and joint tuberculosis or other conditions which involve the central nervous system resulting in paralysis or crippling conditions.

All children discovered in the census of the physically handicapped are reported to the county health officer who is required by law to have each child examined for the purpose of determining his physical and educational needs. The official birth certificate does not provide for reporting of congenital malformations and birth injuries.

(B) Development of State Register of Crippled Children.

Every child discovered in the school census or case-finding



activities will have its name entered on register and referred to one of the diagnostic clinics where it will receive a thorough examination by a competent orthopedist. After a diagnosis is established and treatment instituted, the case remains on the register until the orthopedist determines that complete cure has resulted, or until the child passes beyond the age limit of 21 years. Then the case is carried on by an unofficial organization until the case terminates by moving out of the State or by death.

The State register for crippled children is prepared in accordance with the Children's Bureau memorandum of April 5, 1938, "Outline of Principal Points to be Observed in establishing a State Register of Crippled Children". All new cases admitted to the register since the publication of this memorandum have been recorded in compliance with the principals contained in the instructions. On December 31, 1941, there were 3,410 patients on the state register.

(C) Clinic Services.

Approximately 55 clinics are held in the counties each year. Clinics are conducted by an orthopedic surgeon who is assisted by an orthopedic nurse, public health nurses, physiotherapist and secretary. During the calendar year 1941, 2,651 patients were examined in the county clinics.

(D) Hospitalization.

All hospitals in Baltimore City and in the Counties of Maryland which meet the "Standards of Requirements" as outlined by the Children's Bureau are used by the Services for Crippled Children. Hospitalization is authorized upon recommendation of the attending orthopedic surgeon. In 1941, 462 patients were hospitalized at a cost of \$73,559.27.

All institutions in which the official State agency hospitalizes crippled children have provisions for the admission of negro patients. Negroes are admitted on the same basis as white patients.

(E) Care in Children's Own Homes and in Convalescent and Foster Homes.

The Director, Services for Crippled Children, authorizes convalescent and foster home care when the resources of the child's own home cannot be utilized to provide suitable care, as recommended by the orthopedic surgeon.

Follow-up care in the child's own home is supervised by the orthopedic nurse and the local public health nurse.

(F) Appliances.

The official State agency does not operate a brace shop.

Appliances are purchased from private companies and/or firms. Charges are made for repair of appliances, varying according to the amount of work to be done and need of using new material for parts. No charge is made for fitting. Authorization for purchase is by the Director, Services for Crippled Children.

(G) Transportation of Crippled Children.

Transportation of crippled children is provided to and from clinics, hospitals, convalescent and foster homes, and to and from stores of appliance shops for proper fittings. Transportation by State owned or privately owned cars operated by the personnel of the official State agency is not authorized except in very exceptional instances. Transportation is provided by parents, members of women's clubs, American Legion, civic clubs and occasionally by an official of the local political subdivision in which the clinic is operated or in which the patient resides.

Owing to shortage of automobiles, tires, etc., the train and bus will be used where possible.

(H) Special Projects, Studies, and Demonstrations.

A special project for the care of acute poliomyelitis cases is contemplated in the event of an outbreak similar to the program in effect during the summer of 1941.

Objectives:

1. Reporting by private physicians all cases or suspected cases among their clientele to the local health officers; investigations by the health officer of all cases brought to his attention; isolation of patients and proper instructions to members of the household as to precautionary measures to be taken; and consultation service to the private physician or health officer.
2. Hospitalization of selected cases living in the vicinity of hospitals in the early days of the illness, or proper care in the home of patients who for one reason or another could not be hospitalized.
3. Hospitalization of patients in one of the orthopedic hospitals as soon as the acute stage subsides or when beds are available; thorough after care of patients on return home by a physiotherapist working under the direction of the orthopedic surgeon in charge of the case.

The 1941 outbreak of poliomyelitis afforded the first opportunity for the Services for Crippled Children to put into effect its plan for the care of this type of patient during the acute stage. Of the total number of cases which



SERVICES FOR CRIPPLED CHILDREN  
Calendar Year 1941

County	No. of Clinics	Clinic Attendance	Children Hospitalized	Hospital Days	Hospital Cost	Cost of Appliances
Allegany	6	658	52	3,643	\$ 7,756.50	\$ 262.79
Anne Arundel	27	251	41	3,486	5,686.95	438.80
Baltimore*	0	44	57	3,456	8,246.59	556.65
Calvert	2	36	4	762	1,635.00	174.35
Caroline	2	30	5	578	720.00	53.70
Carroll	2	57	20	730	2,172.47	178.75
Cecil	4	103	12	1,161	2,988.50	219.35
Charles	2	58	12	911	2,192.30	42.60
Dorchester	0	0	9	805	2,087.50	155.70
Frederick	3	147	25	1,992	4,896.50	239.75
Garrett	4	251	24	1,801	3,907.50	751.20
Harford	4	107	24	1,363	2,996.57	337.85
Howard	2	46	9	963	2,252.50	203.05
Kent	2	48	11	974	2,089.50	138.75
Montgomery	3	114	21	1,072	2,199.00	304.40
Pr. George's	3	110	49	3,007	6,427.50	320.80
Queen Anne's	2	65	11	444	1,097.85	212.55
St. Mary's	2	47	5	269	582.50	170.10
Somerset	3	52	9	258	1,002.15	97.70
Talbot	6	122	11	538	662.50	118.00
Washington	4	137	21	1,312	2,623.39	477.33
Wicomico	3	123	16	1,128	2,655.00	141.30
Worcester	3	45	11	1,534	3,420.00	143.75
Balto. City			3	1,087	3,261.00	
TOTAL	89	2,651	462	33,274	\$73,559.27	\$ 5,739.22

\* Patients examined in Baltimore City Hospital Dispensaries

showed definite paralysis, 63 were hospitalized and 67 were seen by either orthopedic surgeons or pediatricians for confirmation of diagnosis, and all received some treatment and instructions in their homes. Of the total number of 130 definitely paralyzed patients for which we have complete records, 72 made a complete recovery or had little if any paralysis remaining. Of the total number, there were only three who, at the end of six months, showed complete paralysis of the part which was involved at the beginning of the disease. Seven deaths occurred among this group. It was necessary to provide respiratory treatment for eight patients. Those cases which were placed in the respirator were cases which ordinarily terminate fatally. Of the number receiving this type of treatment only one died, and this child was in extremes when taken to the hospital.

### RHEUMATIC FEVER PROGRAM

#### WITH SPECIAL REFERENCE TO HEART DISEASE

Through a special grant from the Children's Bureau, it was possible for the Services for Crippled Children to inaugurate a rheumatic fever program in Anne Arundel County, limited to this county for the purpose of determining the value of such a program in the State. The money obtained from the Children's Bureau did not require any matching funds from the State of Maryland.

For the quarter ending June 30, 1942, there were twenty-four new patients admitted to clinic service during the three months, and 59 visits were made by patients to the clinics. There were five patients hospitalized, providing 37 hospital days; 136 days of care were provided in convalescent homes; and 160 days in foster homes. While this program, as an experimental activity, is limited to Anne Arundel County, children from other counties suffering from rheumatic fever have also been given the benefit of hospitalization, and the number of children thus cared for in other sections of the State has equaled, or exceeded the number cared for in Anne Arundel County. This limited service was extended to other sections of the State on the premises that a child in one county was equally entitled to the same care as a child in any other county.

**Definition.** Any person under 21 years of age suffering from heart disease or from conditions leading to heart disease that offers a reasonable expectation of improvement through medical treatment, hospitalization, convalescent care and after care, will receive service under the program. Primary consideration will be given to children suffering from the first attack of rheumatic fever.

**Administration** The rheumatic-fever program is part of Services for Crippled Children, Maryland State Department of Health. The program has been limited to Anne Arundel County, but owing to constant requests from Washington County, it seems advisable to give favorable consideration to establishing the rheumatic fever program in that county.



### Geographic Scope of Program.

In addition to the rheumatic fever program which has been in existence in Anne Arundel County for approximately two years, a similar program should be started in Washington County, and in cases where there is great need for cardiac consultation, such service should be available to patients living in other portions of the State.

### Plans for Case Finding.

By cooperation of private physicians in reporting cardiac conditions in children among their clientele and furnishing information relative to families in which rheumatic fever does or has existed; through the regular medical examination of school children; at the tuberculosis, crippled children, venereal disease and child health clinics. All discovered cases will be referred to the rheumatic fever clinic and those acutely ill will be hospitalized or will have some home consultation service.

### Clinic Service.

The rheumatic fever clinic will be permanent and will be conducted by a pediatrician or cardiologist assisted by a public health nurse and medical social worker (if one is available). Facilities will be furnished for laboratory, fluoroscopy, roentgenology and electrocardiography. The clinics will be located in the health department and will be conducted in cooperation with the Cardiac Clinic, Harriet Lane Home, Johns Hopkins Hospital. Four clinics will be conducted each month at the Annapolis Health Department and two each month at Hagerstown.

### Hospital Service.

Patients suffering from rheumatic fever, heart disease or conditions leading to heart disease who are examined at the cardiac clinic or referred to the official State agency will be admitted to hospital services in cases where additional observation and laboratory procedures are necessary for diagnosis; also in instances where the child's residence makes it impracticable for him to return to the clinic center for observation; and in cases where the diagnostic problem is difficult and requires the opinion of one or more consultants. Patients suffering with acute rheumatic fever will in all instances be hospitalized where the parent and attending physician's permission can be obtained. Hospital rates will range from \$2.50 to \$5.00 per day.

### Home consultation Service.

Children reported by a physician or county health officer to be suffering from acute rheumatic infection or heart disease will be eligible for diagnostic service at home by the pediatrician or cardiologist responsible for the clinic and assisted by the public health nurse and social service worker. This service is to be

given only to patients who are too ill to report to clinic for consultation service.

Follow-Up Care.

The follow-up care will be carried on by the County Public Health Nurse assisted by the Medical Social Worker in Anne Arundel County and the Medical Social Worker in Washington County, when the services of one is available. The after care will also include proper instructions as to diet and proper rest periods. In cooperation with the Department of Education, home teaching will be provided where such services are needed, and the services of a mental hygienist is available in those cases which show emotional disturbances. In the older children, vocational guidance will be provided.

The results in the reduction of communicable diseases in the State have not been accomplished by efforts of any one individual or any one special bureau. The Bureau has enjoyed the cooperation between all of the departments of the State Health Department, the county health officers and their staffs, the physicians of the counties, and the interested citizens in the several communities. The results accomplished in the field of the Services for Crippled Children have been made possible by the unlimited services given by the orthopedic surgeons of the staffs of the Children's Hospital School and the Kernan Hospital, and by the orthopedic nurses and physiotherapists of the Services for Crippled Children, and the aid and assistance given by the personnel of the local health departments, civic groups and an interested community.



MARYLAND STATE HEALTH DEPARTMENT  
MORBIDITY AND MORTALITY STATISTICS

Death From all Causes; Baltimore City and Counties - 1906-1940

Death and Death Rates; All Causes, State of Maryland, By Color - 1906-1940

Deaths, Tuberculosis, by Color; Baltimore City and Counties - 1906-1940

Deaths and Death Rates, by Color; State of Maryland - 1906-1940

Death Rates, Tuberculosis, by Color and Sex; Baltimore City and Counties - 1931-1940

Tuberculosis Cases and Rates, by Color; Baltimore City and Counties - 1922-1941

Typhoid Fever Cases and Deaths; Rates for State of Maryland - 1916-1940

Graph Typhoid Fever, Death Rates - 1907-1940

Typhoid Fever Death Rates, by Color; Baltimore City and Counties - 1931-1940

Diphtheria Cases and Deaths and Rates; State of Maryland - 1916-1940

Diphtheria Death Rates, by Color and Sex; Baltimore City and Counties - 1931-1940

## Deaths from all causes, by color: Baltimore City and Counties of Maryland:

1906 - 1940

	BALTIMORE CITY			COUNTIES OF MARYLAND		
	<u>Total</u>	<u>White</u>	<u>Colored</u>	<u>Total</u>	<u>White</u>	<u>Colored</u>
1906	10,758	8,041	2,717	9,296	6,710	2,586
1907	11,182	8,384	2,798	9,620	6,932	2,688
1908	10,416	7,861	2,555	9,761	7,059	2,702
1909	10,387	7,804	2,583	9,544	6,871	2,673
1910	10,753	8,152	2,601	10,052	7,306	2,746
1911	10,407	7,757	2,650	10,287	7,390	2,897
1912	10,389	7,851	2,538	10,088	7,305	2,783
1913	10,624	7,912	2,712	10,869	7,846	3,023
1914	10,486	7,879	2,607	10,828	7,880	2,948
1915	10,008	7,536	2,472	11,345	8,237	3,108
1916	10,668	7,956	2,712	11,844	8,634	3,210
1917	11,355	8,362	2,993	12,089	8,830	3,259
1918	15,810	12,143	3,667	16,324	12,186	4,138
1919	11,432	8,896	2,536	10,582	7,661	2,921
1920	11,356	8,782	2,574	10,006	7,370	2,636
1921	10,380	8,106	2,274	9,600	7,029	2,571
1922	10,824	8,423	2,401	9,442	7,030	2,412
1923	11,589	8,908	2,681	10,522	7,858	2,664
1924	11,310	8,672	2,638	9,664	7,243	2,421
1925	11,648	8,718	2,930	9,980	7,425	2,555
1926	12,210	9,220	2,990	10,439	7,950	2,489
1927	11,578	8,613	2,965	9,524	7,214	2,310
1928	11,929	8,970	2,959	9,785	7,447	2,338
1929	11,629	8,746	2,883	10,244	7,935	2,309
1930	11,239	8,424	2,815	10,328	7,879	2,449
1931	11,522	8,600	2,922	10,246	7,764	2,482
1932	10,775	8,060	2,715	10,272	7,895	2,377
1933	10,797	8,243	2,554	9,827	7,612	2,215
1934	10,764	8,049	2,715	10,183	7,823	2,260
1935	10,707	7,917	2,790	10,431	8,166	2,265
1936	11,058	8,134	2,924	10,849	8,479	2,370
1937	11,244	8,415	2,829	10,740	8,516	2,224
1938	10,618	8,034	2,584	9,986	7,916	2,070
1939	10,386	7,907	2,479	10,241	8,146	2,095
1940	11,096	8,243	2,853	10,787	8,700	2,087
Total	389,334	293,718	95,616	365,625	274,344	91,281



## DEATHS AND DEATH RATE FOR ALL CAUSES (STILL BIRTHS EXCLUDED)

## STATE OF MARYLAND

1906 - 1940

	TOTAL DEATHS			DEATH RATE PER 1,000 POPULATION		
	<u>Total</u>	<u>White</u>	<u>Colored</u>	<u>Total</u>	<u>White</u>	<u>Colored</u>
1906	20,054	14,751	5,303	16.0	14.5	22.7
1907	20,802	15,316	5,486	16.4	14.8	23.5
1908	20,177	14,920	5,257	15.8	14.3	22.5
1909	19,931	14,675	5,256	15.5	13.9	22.6
1910	20,805	15,458	5,347	16.0	14.5	22.9
1911	20,694	15,147	5,547	15.7	14.0	23.7
1912	20,477	15,156	5,321	15.4	13.8	22.6
1913	21,493	15,758	5,735	16.0	14.2	24.2
1914	21,314	15,759	5,555	15.6	14.0	23.3
1915	21,353	15,773	5,580	15.5	13.8	23.3
1916	22,512	16,590	5,922	16.1	14.4	24.6
1917	23,444	17,192	6,252	16.6	14.7	25.9
1918	32,134	24,329	7,805	22.5	20.6	32.1
1919	22,014	16,557	5,457	15.3	13.8	22.3
1920	21,362	16,152	5,210	14.6	13.3	21.1
1921	19,980	15,135	4,845	13.5	12.3	19.4
1922	20,266	15,453	4,813	13.6	12.5	19.0
1923	22,111	16,766	5,345	14.6	13.3	20.9
1924	20,974	15,915	5,059	13.7	12.5	19.5
1925	21,628	16,143	5,485	14.0	12.6	20.9
1926	22,649	17,170	5,479	14.5	13.2	20.6
1927	21,102	15,827	5,275	13.3	12.0	19.6
1928	21,714	16,417	5,297	13.6	12.3	19.5
1929	21,873	16,681	5,192	13.6	12.4	18.9
1930	21,567	16,303	5,264	13.2	12.0	18.9
1931	21,768	16,364	5,404	13.1	11.9	19.3
1932	21,047	15,955	5,092	12.6	11.5	18.0
1933	20,624	15,855	4,769	12.2	11.3	16.7
1934	20,947	15,972	4,975	12.2	11.2	17.3
1935	21,138	16,083	5,055	12.2	11.2	17.4
1936	21,907	16,613	5,294	12.5	11.4	18.1
1937	21,984	16,931	5,053	12.4	11.8	17.1
1938	20,604	15,950	4,654	11.5	10.7	15.6
1939	20,627	16,053	4,574	11.4	10.7	15.2
1940	21,883	16,943	4,940	12.0	11.1	16.3

## PER CENT INCREASE OR DECREASE 1906-1940

Number of Deaths			Rate per 1,000 Population		
<u>Total</u>	<u>White</u>	<u>Colored</u>	<u>Total</u>	<u>White</u>	<u>Colored</u>
+9.1	+14.9	-6.8	-25.0	-23.4	-28.2

## DEATHS FROM ALL FORMS OF TUBERCULOSIS BY COLOR

## Baltimore City and Counties of Maryland

1906 - 1940

	BALTIMORE CITY			COUNTIES OF MARYLAND		
	<u>Total</u>	<u>White</u>	<u>Colored</u>	<u>Total</u>	<u>White</u>	<u>Colored</u>
1906	1,500	1,019	481	1,110	686	424
1907	1,477	981	496	1,105	681	424
1908	1,421	953	468	1,152	680	472
1909	1,447	937	510	1,168	708	460
1910	1,404	907	497	1,158	734	424
1911	1,394	879	515	1,266	755	511
1912	1,394	910	484	1,147	723	424
1913	1,348	849	499	1,239	772	467
1914	1,320	852	468	1,389	880	509
1915	1,287	798	489	1,299	826	473
1916	1,321	812	509	1,405	902	503
1917	1,395	855	540	1,366	907	459
1918	1,478	935	543	1,449	980	469
1919	1,238	798	440	1,152	751	401
1920	1,105	714	391	1,034	623	411
1921	1,047	616	431	950	636	314
1922	1,000	626	374	939	629	310
1923	985	579	406	897	573	324
1924	939	601	338	908	555	353
1925	959	561	398	926	574	352
1926	888	554	334	912	589	323
1927	821	450	371	803	512	291
1928	828	459	369	875	545	330
1929	855	492	363	828	527	301
1930	813	434	379	808	478	330
1931	789	393	396	798	500	298
1932	707	342	365	804	492	312
1933	647	342	305	729	450	279
1934	813	411	402	542	340	202
1935	808	416	392	555	333	222
1936	836	433	403	582	350	232
1937	861	452	409	523	312	211
1938	711	379	332	503	300	203
1939	673	336	337	476	283	193
1940	816	393	423	486	290	196



## DEATHS AND DEATH RATES FOR TUBERCULOSIS (ALL FORMS)

## STATE OF MARYLAND

1906 - 1940

	DEATHS			RATE PER 100,000 POPULATION		
	<u>Total</u>	<u>White</u>	<u>Colored</u>	<u>Total</u>	<u>White</u>	<u>Colored</u>
1906	2610	1705	905	208.1	167.1	387.0
1907	2582	1662	920	204.1	161.1	393.9
1908	2573	1633	940	201.7	156.6	403.0
1909	2615	1645	970	203.2	156.1	416.4
1910	2562	1641	921	197.3	154.0	395.3
1911	2660	1634	1026	202.3	151.3	438.0
1912	2541	1633	908	191.0	149.1	385.6
1913	2587	1621	966	192.1	146.1	408.0
1914	2709	1732	977	193.9	154.1	410.5
1915	2586	1624	962	187.6	142.6	402.1
1916	2726	1714	1012	195.6	148.6	420.7
1917	2761	1762	999	195.8	150.8	413.2
1918	2927	1915	1012	205.3	161.9	416.4
1919	2390	1549	841	165.8	129.4	344.3
1920	2139	1337	802	146.7	110.3	325.3
1921	1997	1252	745	135.3	102.1	298.4
1922	1939	1255	684	129.8	101.1	270.5
1923	1882	1152	730	124.5	91.7	285.1
1924	1847	1156	691	120.7	91.0	266.6
1925	1885	1135	750	121.8	88.3	285.9
1926	1800	1143	657	115.0	87.9	247.5
1927	1624	962	662	102.6	73.2	246.4
1928	1703	1004	699	106.4	75.6	257.1
1929	1663	1019	664	104.0	75.9	241.5
1930	1621	912	709	99.1	67.1	255.0
1931	1587	893	694	95.9	64.9	247.4
1932	1511	834	677	90.3	59.9	239.2
1933	1376	792	584	81.3	56.3	204.5
1934	1355	751	604	79.1	52.7	209.6
1935	1363	749	614	78.7	52.0	211.2
1936	1418	783	635	81.0	53.7	216.5
1937	1384	764	620	78.2	51.9	209.6
1938	1214	679	535	67.9	45.6	179.3
1939	1149	619	530	63.6	41.1	176.2
1940	1302	683	619	71.3	44.9	204.0

## PER CENT DECREASE, 1906-1940

<u>Total</u>	Number of Deaths		<u>Total</u>	Rate per 100,000 Population	
	<u>White</u>	<u>Colored</u>		<u>White</u>	<u>Colored</u>
50.1	59.9	31.6	65.7	73.1	47.3

Death rates per 100,000 population for TUBERCULOSIS OF THE RESPIRATORY SYSTEM by color and sex:  
Baltimore City and Counties of Maryland: 1931 - 1940 \*

	BALTIMORE CITY						COUNTIES OF MARYLAND					
	Both Colors			White		Colored	Both Colors		White		Colored	
	Male	Female		Male	Female		Male	Female	Male	Female	Male	Female
1931	105.2	64.5		68.1	35.7		89.3	86.6	69.7	61.8	189.3	220.2
1932	93.8	60.5		59.6	30.3		81.3	93.5	58.5	68.6	200.5	230.7
1933	91.4	50.5		62.9	31.3		74.1	86.4	58.8	59.3	155.2	237.9
1934	87.6	52.8		57.5	24.8		74.5	74.1	59.8	53.5	153.7	190.9
1935*	95.6	53.1		58.4	31.9		58.4	56.5	45.2	37.3	131.1	167.2
1936	119.4	69.7		84.3	38.8		60.6	58.5	45.5	39.0	145.1	173.1
1937	123.2	69.5		85.4	40.1		50.7	55.0	36.3	39.1	132.3	149.5
1938	99.0	58.9		74.1	31.0		48.3	51.5	34.7	34.9	126.7	152.3
1939	89.8	58.3		61.7	30.3		49.9	42.8	39.7	26.5	109.7	142.8
1940	120.4	59.3		80.9	28.7		49.0	41.8	35.0	27.5	132.1	130.2

\* Resident figures beginning with 1935.



TUBERCULOSIS CASES AND RATES PER 100,000 POPULATION - (All Forms)

BALTIMORE CITY, COUNTIES OF MARYLAND AND STATE OF MARYLAND

YEARS	STATE OF MARYLAND				BALTIMORE CITY				COUNTIES OF MARYLAND			
	WHITE		COLORED		WHITE		COLORED		WHITE		COLORED	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
1922	1881	151.5	792	313.2	1057	166.6	389	332.4	824	126.9	403	296.7
1923	1832	145.9	856	334.3	1081	169.5	455	396.8	751	121.5	401	295.5
1924	2194	172.7	926	357.3	1015	158.2	462	373.6	1179	187.4	464	342.4
1925	2360	183.6	1067	406.7	1040	161.2	510	401.6	1320	206.2	557	411.5
1926	2143	164.9	872	328.4	1005	154.9	477	366.1	1138	174.8	395	292.1
1927	2066	157.2	928	345.4	953	146.1	508	380.2	1113	168.1	420	311.0
1928	2084	156.8	946	348.0	927	141.3	446	325.6	1157	171.9	500	370.7
1929	2168	161.4	957	348.0	969	146.9	481	342.9	1199	175.3	476	353.3
1930	1874	138.0	923	331.8	1001	150.9	531	369.8	873	125.6	392	290.9
1931	1884	137.2	872	309.9	912	136.8	516	351.2	972	137.7	356	264.8
1932	1600	115.3	879	308.9	721	107.5	481	320.1	879	122.6	398	296.4
1933	1719	122.6	896	311.5	885	131.3	509	331.5	874	114.6	387	288.6
1934	1646	115.5	944	327.6	819	121.3	582	380.8	827	110.4	362	267.4
1935	1893	131.4	1170	402.4	1002	147.7	777	500.0	891	116.9	393	289.9
1936	1672	114.7	1094	373.0	877	128.9	688	436.7	795	102.5	406	299.1
1937	1982	134.5	1225	414.1	1037	151.5	794	496.5	945	119.6	431	317.1
1938	1812	121.6	1192	399.5	898	130.6	772	474.8	914	113.9	420	308.5
1939	1510	100.2	1211	402.5	703	101.8	812	493.2	807	88.9	399	292.8
1940	1468	96.1	1099	362.2	777	112.0	766	458.7	691	83.3	333	244.1
1941	1646	106.9	1374	449.1	905	129.9	998	589.3	741	87.9	376	275.2
Total	37,434		20,223		18,584		11,954		18,850		8,269	





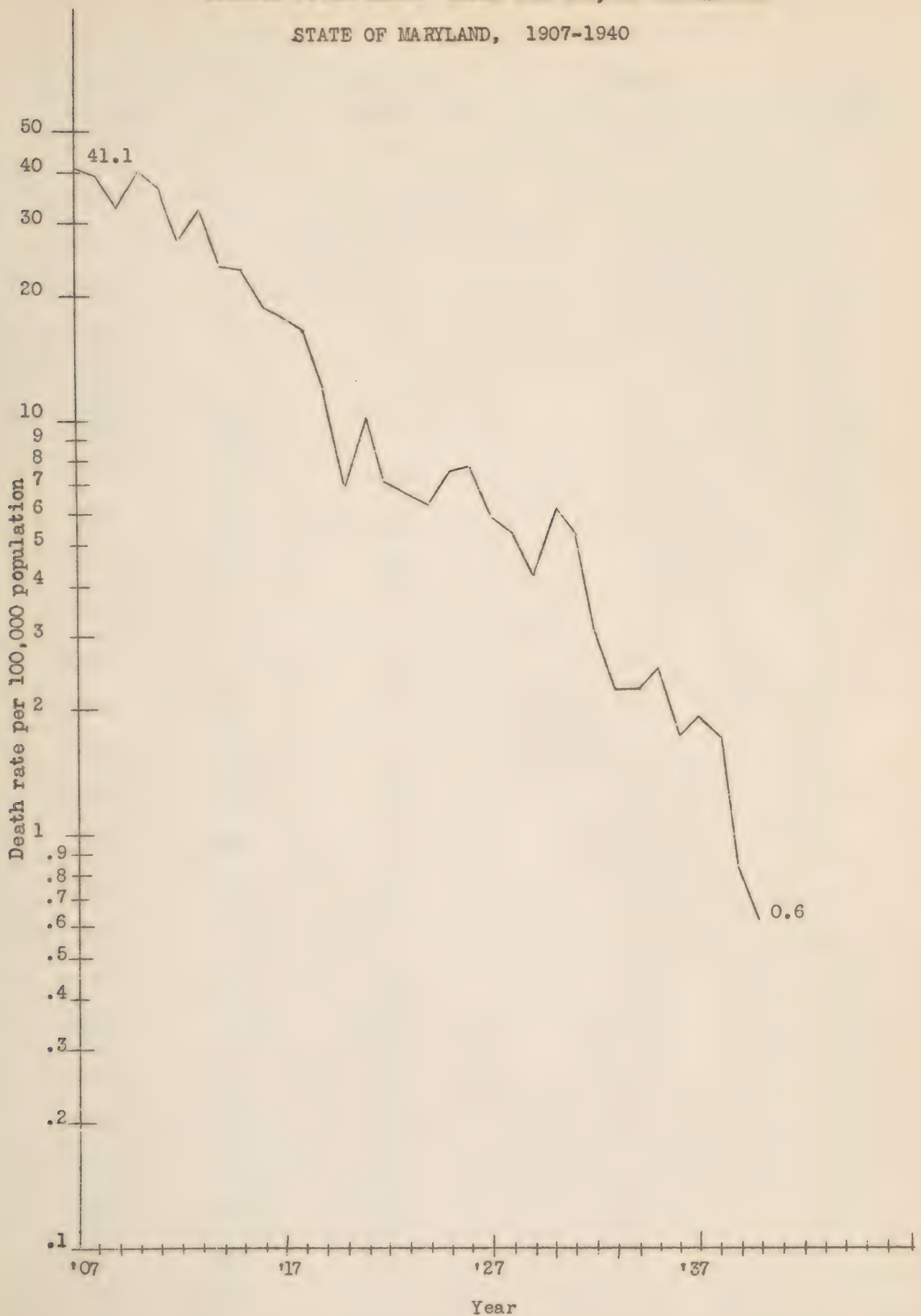
TYPHOID FEVER CASES AND DEATHS WITH RATES PER 100,000 POPULATION

STATE OF MARYLAND

Year	Cases	Rates per 100,000 pop.	Deaths	Rates per 100,000 pop.
1916	2,668	191.3	265	19.0
1917	2,344	166.2	256	18.1
1918	1,687	118.3	238	16.7
1919	1,614	113.2	170	11.8
1920	1,028	71.3	100	6.9
1921	1,594	109.2	152	10.3
1922	1,207	80.7	106	7.1
1923	1,212	80.1	100	6.6
1924	971	63.4	97	6.3
1925	1,271	82.1	116	7.5
1926	1,061	67.7	120	7.7
1927	874	65.2	94	5.9
1928	789	49.3	87	5.4
1929	550	34.0	68	4.2
1930	986	60.2	102	6.2
1931	787	47.6	90	5.4
1932	695	41.5	52	3.1
1933	554	32.7	37	2.2
1934	416	24.3	38	2.2
1935	483	28.0	44	2.5
1936	273	15.6	29	1.7
1937	327	18.5	33	1.9
1938	281	15.8	31	1.7
1939	182	10.1	15	0.8
1940	127	7.0	11	0.6

# TYPHOID FEVER DEATH RATES PER 100,000 POPULATION

STATE OF MARYLAND, 1907-1940





## DIPHTHERIA CASES AND DEATHS WITH RATES PER 100,000 POPULATION

## STATE OF MARYLAND

<u>Year</u>	<u>Cases</u>	<u>Rates per 100,000 pop.</u>	<u>Deaths</u>	<u>Rates per 100,000 pop.</u>
1916	1,885	135.2	170	12.2
1917	1,596	113.1	137	9.7
1918	1,259	88.3	135	9.5
1919	2,743	190.3	225	15.6
1920	2,562	174.9	192	13.2
1921	2,596	175.8	182	12.3
1922	2,643	176.9	163	10.9
1923	2,355	155.7	156	10.3
1924	1,845	120.6	118	7.7
1925	1,511	97.6	88	5.7
1926	1,356	99.4	98	6.3
1927	2,159	136.4	118	7.5
1928	1,539	96.1	106	6.6
1929	1,058	65.3	72	4.4
1930	1,139	69.6	60	3.7
1931	1,503	90.8	65	3.9
1932	914	54.5	52	3.1
1933	626	36.9	29	1.7
1934	505	29.4	25	1.5
1935	426	24.7	22	1.3
1936	434	24.9	33	1.9
1937	513	29.1	23	1.3
1938	356	20.0	21	1.2
1939	245	13.6	23	1.3
1940	158	8.6	7	0.4

Death rates per 100,000 population for DIPHTHERIA by color and sex:  
Baltimore City and Counties of Maryland: 1931 - 1940\*

Year	BALTIMORE CITY						COUNTIES OF MARYLAND					
	Both Colors		White		Colored		Both Colors		White		Colored	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1931	3.7	1.9	2.4	1.5	9.7	4.1	4.6	5.4	3.6	4.3	9.9	10.9
1932	2.2	1.4	1.5	0.9	5.5	4.0	3.9	4.8	3.0	4.5	8.5	6.2
1933	1.2	0.2	0.9	0.3	2.7	-	2.5	2.8	2.7	3.1	1.4	1.5
1934	1.2	0.5	1.2	0.6	1.3	-	1.8	1.9	2.1	1.9	-	1.5
1935	-	1.4	-	1.7	-	-	1.7	2.7	1.8	2.4	1.4	4.6
1936	0.5	1.4	-	0.9	2.6	3.7	3.0	2.5	3.3	1.6	1.4	7.7
1937	0.5	1.2	0.3	1.1	1.3	1.2	1.3	2.2	1.5	2.1	-	3.1
1938	0.2	0.5	0.3	0.6	-	-	1.5	2.4	1.5	2.3	1.4	3.1
1939	0.2	0.5	0.3	0.6	-	-	2.3	1.9	2.4	2.0	1.4	1.5
1940	-	0.2	-	0.3	-	-	0.4	0.8	0.5	0.7	-	1.5

\*Resident figures beginning with 1935

Per cent decrease in number deaths and rates per 100,000 Population  
for Diphtheria for State of Maryland, 1906-1940

Total		Number		Rate	
		White	Colored	White	Colored
-97.9	-97.8	-97.8	-98.1	-98.5	-98.7

Maryland State Dept. of Health - 1942



MARYLAND STATE DEPARTMENT OF HEALTH

MAPS

1. Table of Organization
2. State of Maryland - Counties in Which are Located Military Reservations  
or Industrial Projects
3. Allegany County
4. Anne Arundel County
5. Baltimore County
6. Calvert County
7. Cecil County
8. Charles County
9. Frederick County
10. Harford County

Since these maps were compiled, all the Eastern Shore Counties have some defense project or military reservation established or proposed.

# STATE DEPARTMENT OF HEALTH OF MARYLAND

## Former Presidents of the Maryland State Board of Health.

Dr. Nathan R. Smith.....1874-1876  
 Dr. E. Lloyd Howard.....1876-1881  
 Dr. Jas. Robert Ward.....1881-1884  
 Dr. Richard McSherry.....1884-1885  
 Dr. Jackson Piper.....1885-1893  
 Dr. John Morris.....1893-1895  
 Dr. J.M.H. Butternut.....1895-1897  
 Dr. S. Chas. de Krafz.....1897-1899  
 Dr. Wm. H. Welch.....Jan 1900-Jan 1923

Chairmen of the Board -  
 Dr. John S. Fulton, Jan. 1923-May 26, 1928.  
 Dr. Robert H. Riley, May 26, 1928-.....

The Board consists of 9 Members, as follows:  
 4 Physicians, 1 Civil Engineer, 1 Pharmacist,  
 1 Doctor of Dental Surgery, the Attorney General,  
 of the State and the Commissioner of Health  
 of Baltimore City (ex-officio).

The County Health Officers are appointed  
 with the advice and consent of the State  
 Board of Health. (Act of Legislature, 1951).

## Maryland State Board of Health

la SIXTH in Point of Age.  
 Admitted to Area of Death  
 Registration in 1906.  
 Admitted to Area of Birth  
 Registration in 1916.

## STATE BOARD OF HEALTH

ORGANIZED, MAY 6, 1874  
 ACT PASSED, JANUARY SESSION OF GENERAL ASSEMBLY

## DIRECTOR OF PUBLIC HEALTH

January 1, 1923.

## STATE ADVISORY NURSE

## EDITORIAL ASSISTANT

Public Health Education

## DIVISION OF LEGAL ADMINISTRATION

Investigates violations  
 and enforces  
 Health Laws.  
 Administers Bedding  
 and Upholstery Laws.

## NUTRITIONIST

## DIVISION OF ORAL HYGIENE

## EDUCATIONAL

County and Community  
 Organization for School  
 Dental Clinics.  
 Undergraduate Instruction  
 in Preventive Dentistry.  
 Teacher Training Course  
 in Oral Hygiene.



## BUREAU OF VITAL STATISTICS

Legislative Act of 1865  
 Amended, 1898, 1900, 1920.  
 Registration began in 1898.  
 Separate Bureau  
 authorized in 1910.

Registration of Births  
 and Deaths through  
 Local Registrars.

Advice and Assistance  
 to unregistered Persons

Query, correction and  
 indexing of Certificates

Issuance of registration  
 Statements and  
 Certified Copies.

Filling Duplicates of  
 Marriage and Divorce  
 Certificates.

Tabulation and  
 Publication of  
 Statistics.

Conduct of  
 Statistical Studies  
 and Analyses.

Licensing of Midwives

## BUREAU OF COMMUNICABLE DISEASES

Acts of Legislature,  
 1890, 1896, 1904, 1910.  
 Authorized by Law, 1910

Registration of  
 Morbidity of all  
 Reportable Diseases

Administrative  
 control of  
 Communicable  
 Diseases.

Tabulating, Computing  
 and Analysis of  
 Morbidity Data.

EPIDEMIOLOGIST  
 January 1, 1930.  
 Epidemiological and  
 Diagnostic Services.

PASTEUR  
 TREATMENT

V.D. CONTROL

TUBERCULOSIS  
 CONTROL

SERVICES FOR  
 CRIPPLED CHILDREN

## BUREAU OF BACTERIOLOGY

Legislative Acts of  
 1898, 1910 and 1939.  
 Bureau organized  
 in 1912.

Examination of  
 Specimens for  
 Physicians and  
 Health Officials  
 in connection with  
 the Diagnosis  
 and Control  
 of Diseases

Examination of  
 Samples of Water,  
 Milk, Shellfish  
 and other Foods  
 to determine  
 freedom from  
 Infectious Agents.

Establishment of  
 Minimum Standards  
 and Qualifications for  
 Laboratory Workers  
 in the Counties of  
 Maryland. (Act of 1939)

Central Laboratory  
 Baltimore.  
 Branch Laboratories  
 at Cumberland,  
 Hagerstown, Hurlbuck,  
 Frederick, Rockville,  
 Salisbury, Elktion,  
 Annapolis and LaPlata.

## BUREAU OF CHEMISTRY

Legislative Acts of  
 1887, 1908 and 1910.  
 Bureau authorized  
 by Law in 1910.

Examination of  
 Foods, Drugs, Water  
 and Sewage;  
 also Trade Wastes.

Development of  
 new analytical  
 Methods for Foods,  
 Drugs, Water and  
 Sanitation Products

\*Analyst provided  
 by the State Board  
 of Health in 1887.

## COUNTY HEALTH UNITS

Full Time Health Units  
 in all the Counties.  
 Legislative Acts of  
 1914, 1922 and 1931.

County Health Officers are also  
 Deputy State Health Officers.  
 They represent the  
 Director of Public Health.

In cooperation with the  
 State Health Department,  
 they formulate and administer  
 the County Health Program.

Epidemiological  
 Investigations.  
 Preventive Inoculations.

Examination of  
 School Children.

Supervision of Clinics.

Supervision of  
 Nursing Service.

Sanitary Surveys and  
 Investigation of Nuisances

## DIVISION OF PERSONNEL AND ACCOUNTS

Organized by the  
 Board in 1910.

Money  
 Accounting

Property  
 Accounting

Printing

Purchase and  
 Distribution of  
 all Supplies and  
 Equipment.

## BUREAU OF FOOD & DRUGS

Legislative Acts  
 of 1890-1910  
 Bureau authorized  
 by Law in 1910.

STATE FOOD AND DRUG  
 COMMISSIONER, 1910

DEPUTY DRUG  
 COMMISSIONER, 1922

Enforcement of  
 Food, Drug and  
 Pharmacy Laws

Food and Drug  
 Inspection.

Sanitary Inspections  
 of Food and Drug  
 Handling Establishments

Educational and  
 constructive measures

Cold storage supervision  
 Inspection of Dairies  
 and Pasteurization  
 Plants.

Inspection of  
 Canneries,  
 Crabmeat and  
 Oyster packing  
 Establishments.

## BUREAU OF SANITARY ENGINEERING

Bureau authorized  
 by Law of 1910 and  
 organized in 1912.

Supervision and Control  
 over Water and Sewage  
 Refuse Disposal,  
 Stream Pollution,  
 Shellfish Investigations.

Supervision and Control  
 over Installation,  
 Extension, Alteration,  
 Maintenance and  
 Operation of  
 Water and Sewage  
 Systems and Works.

Approval of Plans,  
 Design of Sanitary  
 Works for State  
 Institutions.

Investigation of  
 operation and  
 maintenance of  
 Sanitary Works.  
 Research on Water,  
 Sewage and Trade  
 Waste Treatment.

Promoting  
 installation of  
 Sanitary Works  
 throughout the State.

## BUREAU OF CHILD HYGIENE

Authorized by Law  
 and organized in 1922.

Consultation Service  
 Pediatric,  
 Obstetrical.

Clinics:  
 Prenatal, Postnatal,  
 Infant and Preschool.

Public Health  
 Nursing Service,  
 Maternity and  
 Child Hygiene.

Nutrition Service.

Organization of  
 Volunteer Service  
 for Mothers  
 and Children.

Instruction in  
 Maternity and Child  
 Care. Lectures,  
 Demonstrations,  
 Conferences  
 and Literature.

Maintains Health  
 Trailer Travelling  
 Clinics for Children.

Supervision over  
 training of Midwives

## Secretaries and State Health Officers

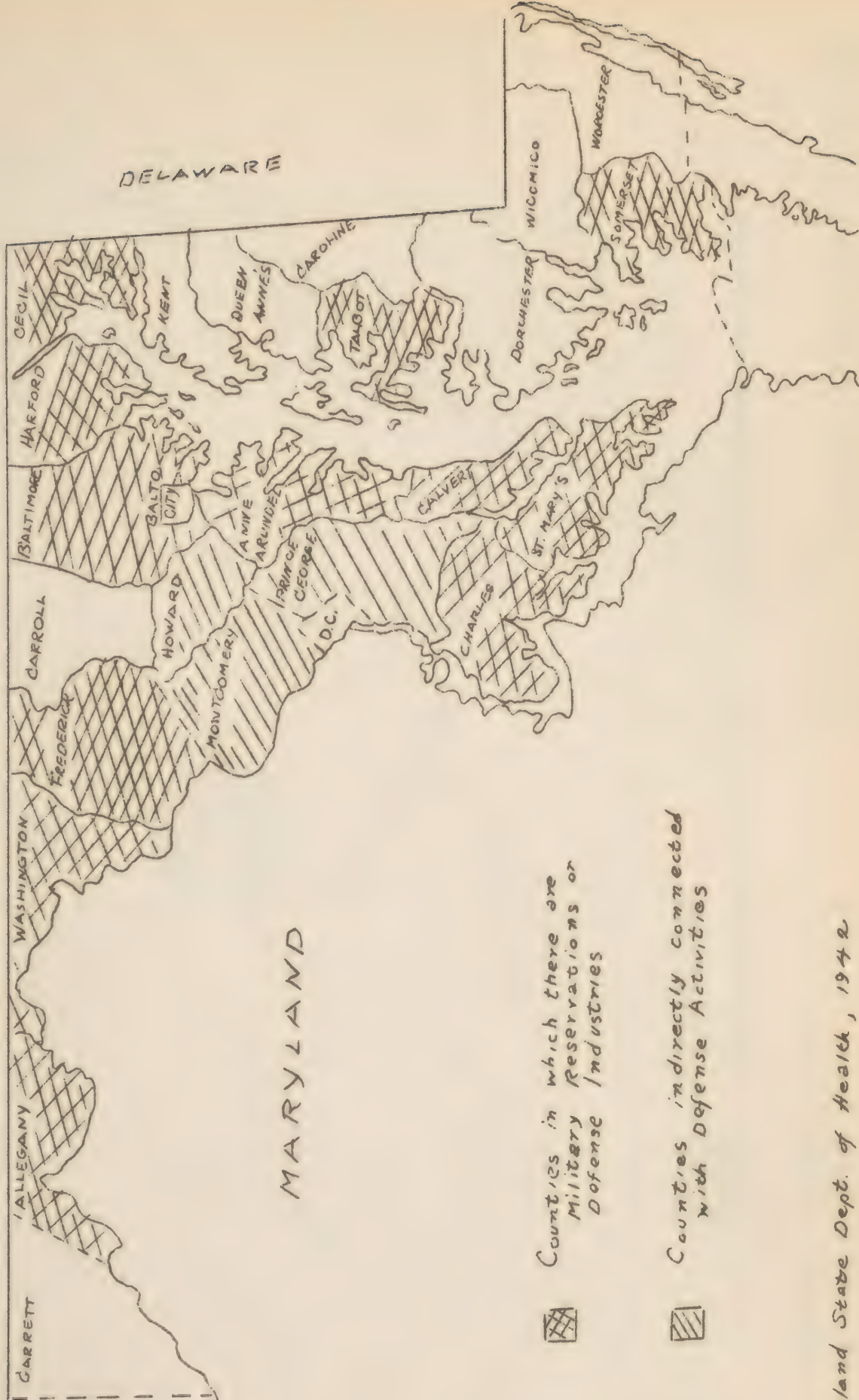
Maryland State Board of Health.

## EXECUTIVE SECRETARIES.

Dr. E. Lloyd Howard.....1874-1876  
 Dr. Chas. W. Chancellors.....1876-1886  
 Dr. James Stewart.....1886-1896  
 Dr. John S. Fulton.....1896-1907  
 \* Sept 17, 1896 to May 1, 1907, -  
 Secretary General International Congress  
 on Hygiene and Demography, 1909-1913.  
 Secretary General International Congress  
 on Hygiene and Demography, 1909-1913.  
 Dr. Marshall L. Price.....1907-1913  
 Dr. John S. Fulton.....1913-1923  
 {Secretary to the Board and State  
 Health Officer from 1914 to 1923.  
 Director of Health and Chairman of the Board  
 Dr. John S. Fulton.....Jan 1, 1923 to May 26, 1928  
 \* Appointed Director Executive, May 26, 1928  
 Dr. Robert H. Riley, Director of Health  
 and Chairman of the Board, May 26, 1928.

\* Chronology of inauguration of full time County health services: Allegany 1922; Montgomery 1923; Frederick, Baltimore, Calvert and Carroll 1924; Prince Georges and Talbot 1927; Harford 1928; Cecil and Wicomico 1929; Kent, Washington and Anne Arundel 1930; Garrett, Dorchester, Queen Annes and Worcester 1931; St. Marys, Charles, Howard and Somerset 1932; Caroline 1934.



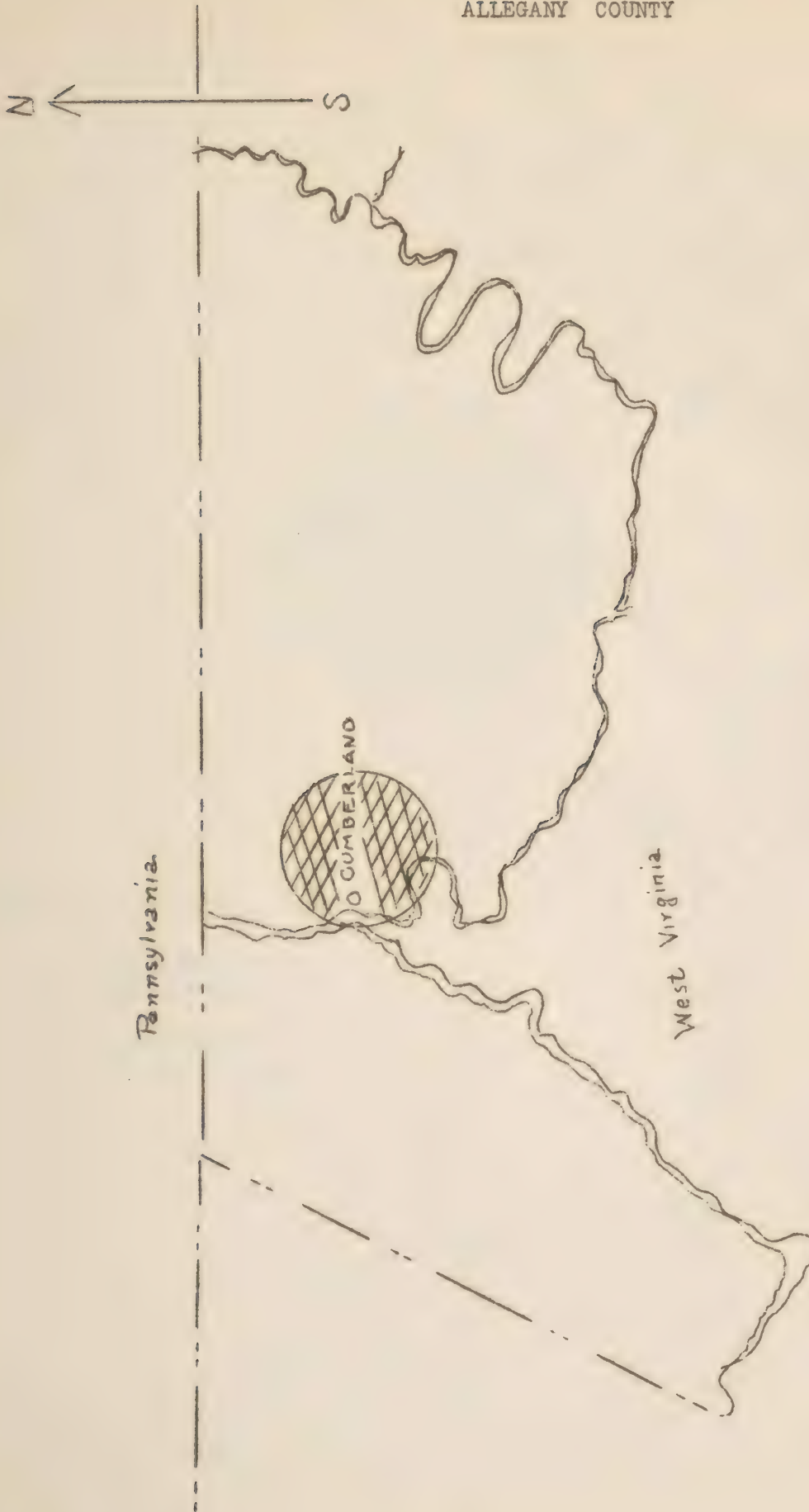


# MARYLAND

Countries in which there are  
Military Reservations or  
Defense Industries

Countries indirectly connected  
with Defense Activities

Outline Map of  
ALLEGANY COUNTY



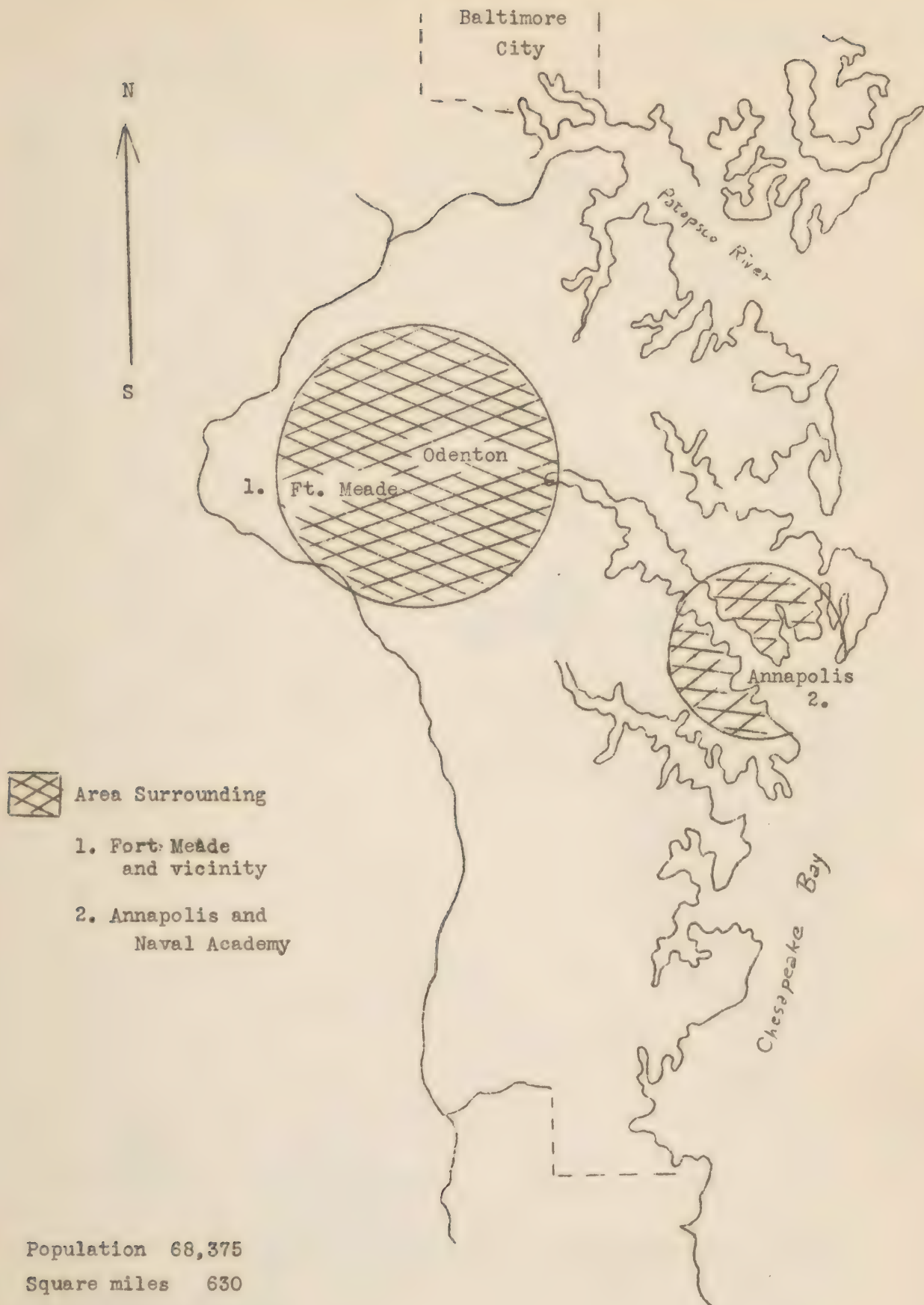
Area Surrounding

Kelly-Springfield Tire Co., which is being converted into a war industry

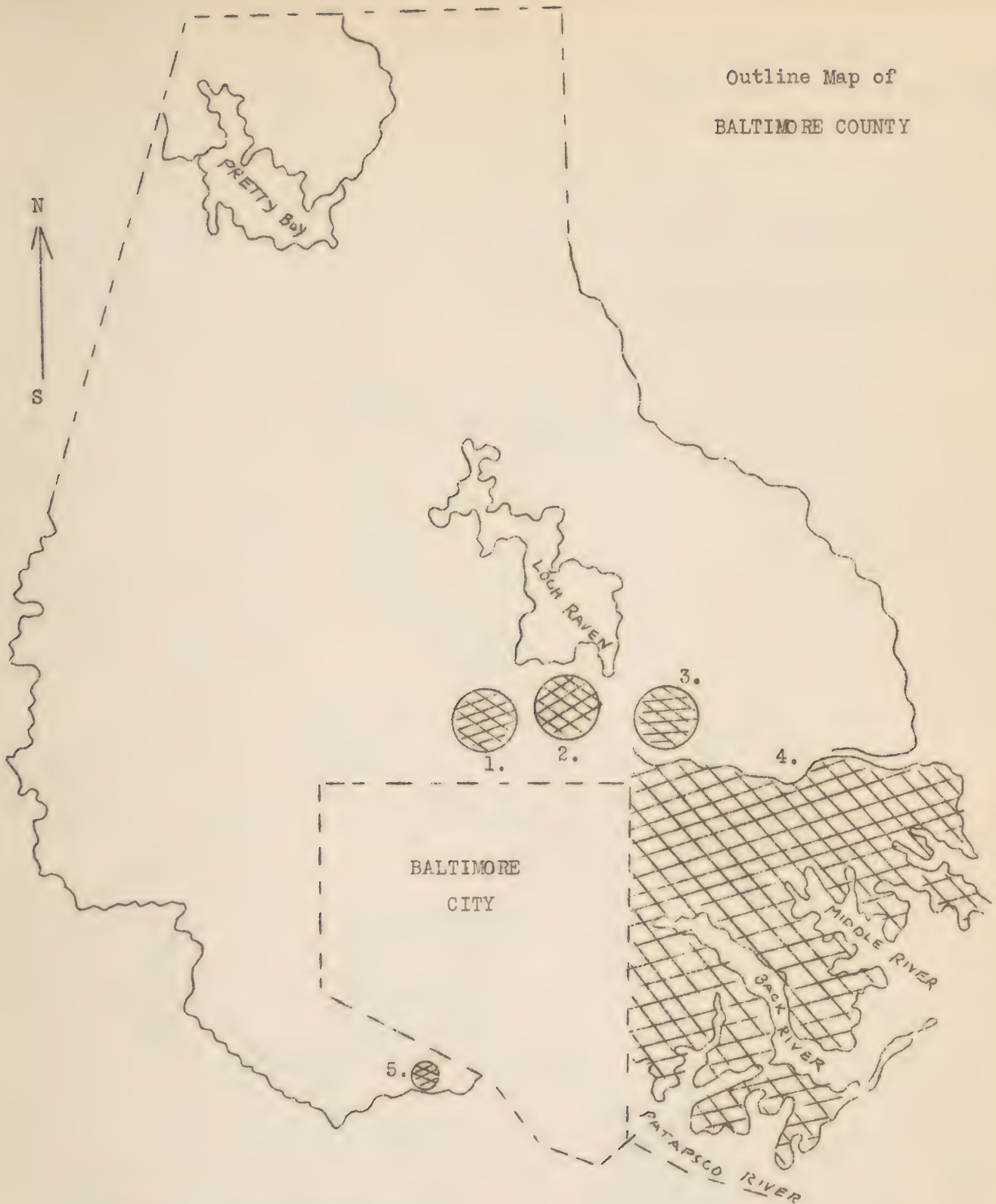
Population 86,973  
Square miles 425



Outline Map of  
ANNE ARUNDEL COUNTY



Outline Map of  
BALTIMORE COUNTY



Area surrounding

1. Black and Decker
2. Bendix Radio
3. Julien P. Friez & Sons
4. Glenn Martin Aircraft and Bethlehem Steel Company
5. Westinghouse Instrument Company, Lansdowne

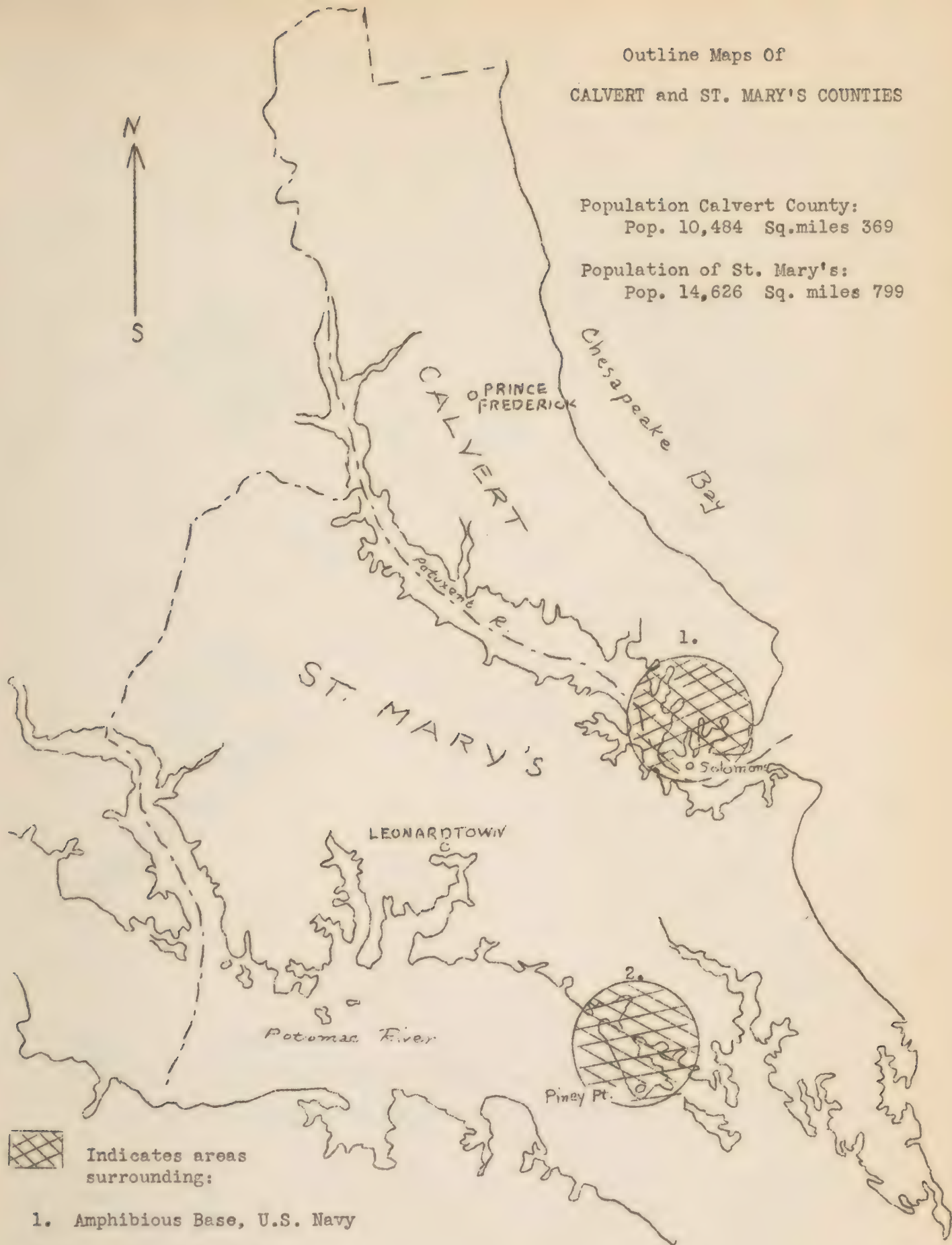
Population 155,825  
Square miles 702



Outline Maps Of  
CALVERT and ST. MARY'S COUNTIES

Population Calvert County:  
Pop. 10,484 Sq.miles 369

Population of St. Mary's:  
Pop. 14,626 Sq. miles 799



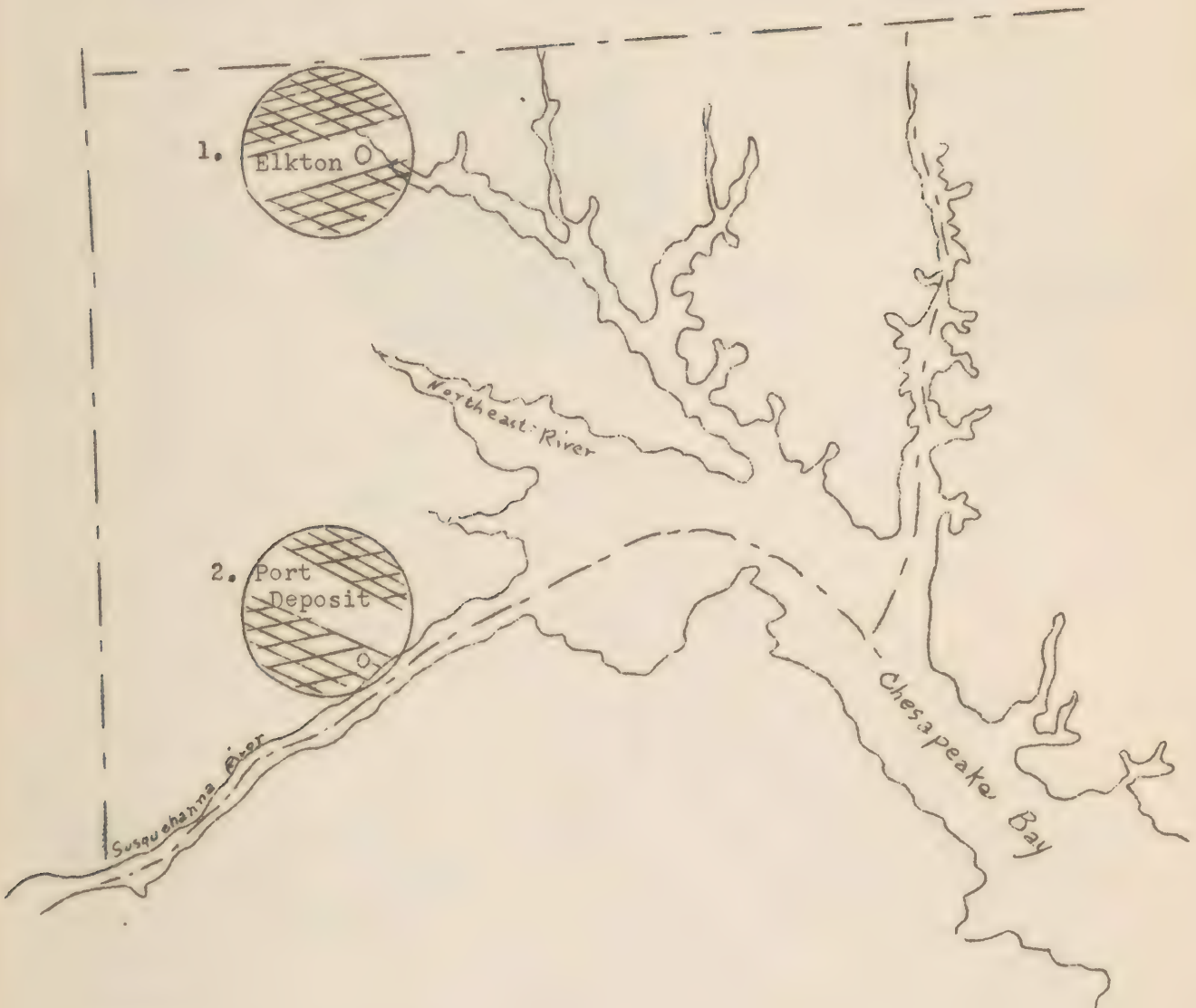
1. Amphibious Base, U.S. Navy

2. Airport, U.S. Navy

Outline Map of

CECIL COUNTY

N ← ————— S



Area surrounding

1. Triumph Explosives and National Fireworks at Elkton
2. U.S. Naval Training Station at Port Deposit

Population 26,407

Square miles 424

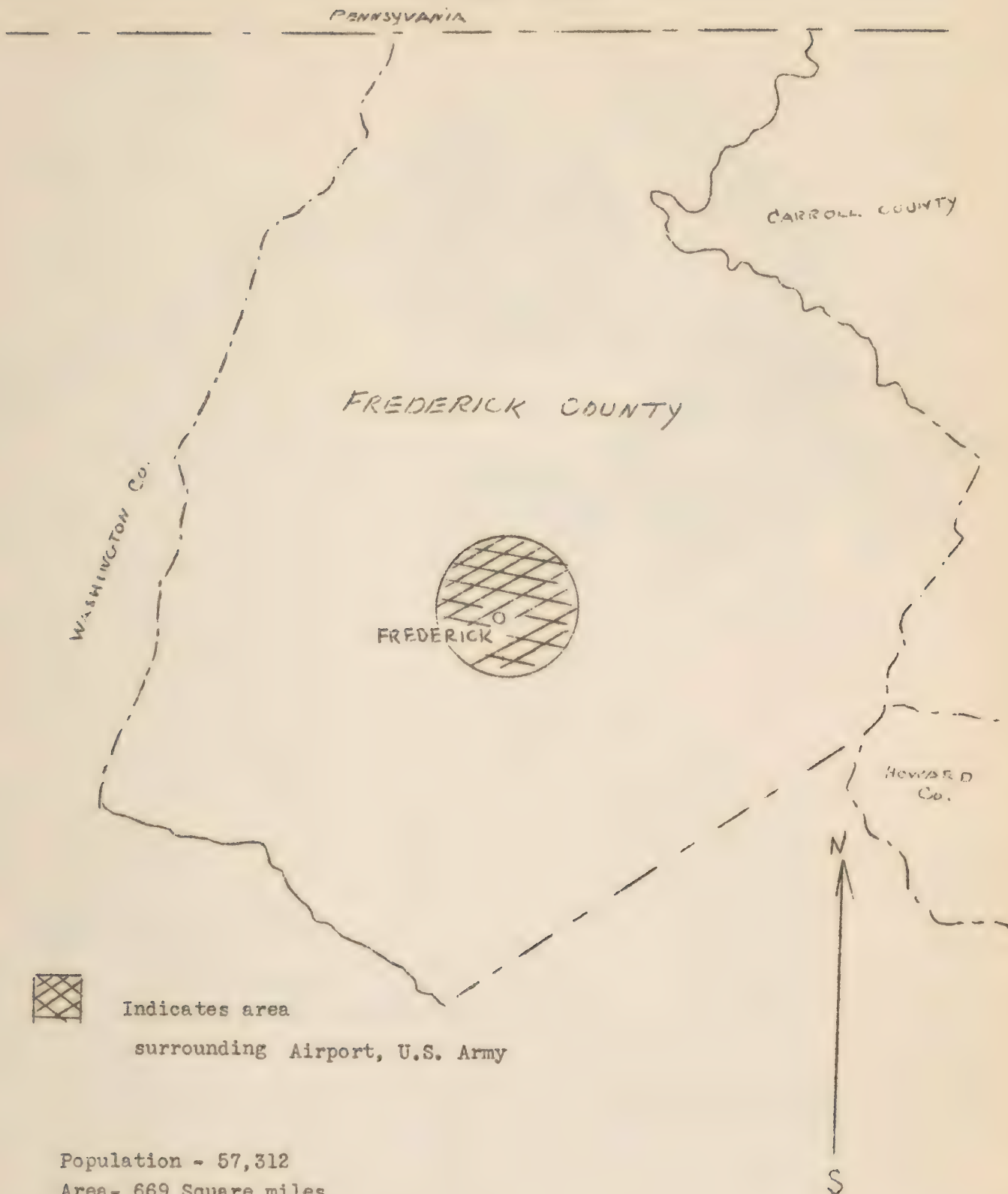


Outline Map of  
CHARLES COUNTY



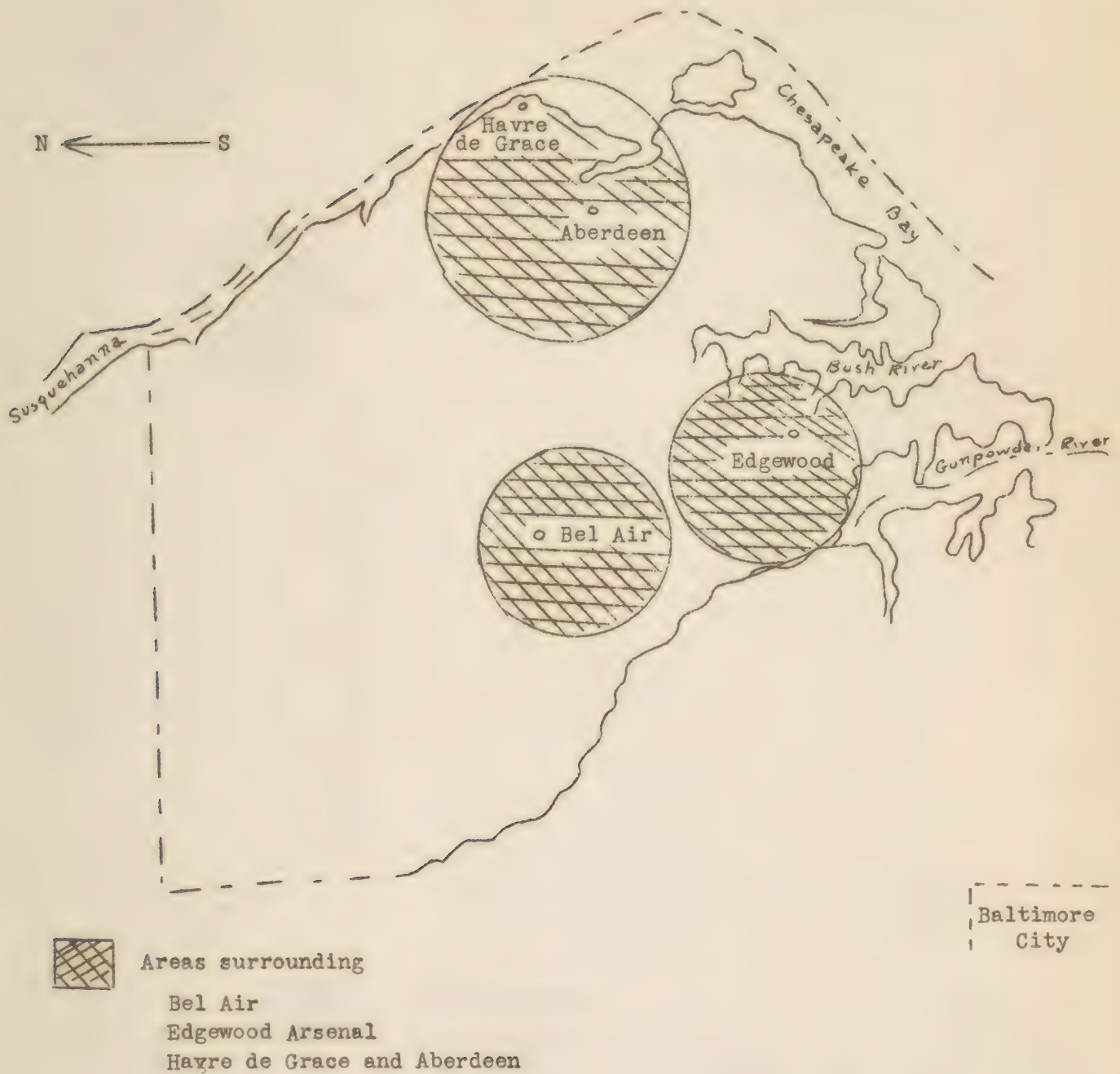
Population 17,175  
Square miles 641

Outline Map of  
FREDERICK COUNTY





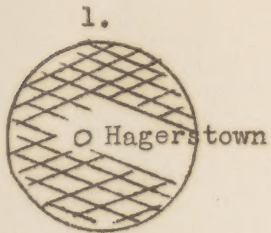
Outline Map of  
HARFORD COUNTY



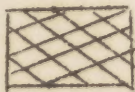
Population - 35,060  
Square Miles - 539

Outline Map of  
WASHINGTON COUNTY

M ← S



Hagerstown



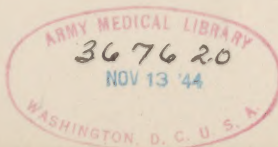
Area surrounding

1. Fairchild Airplane Company

2. Camp Ritchie- U.S. Army Reservation

Population 68,838

Square miles 468



Maryland State Department of Health, 1942

PENNSYLVANIA









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